Appendix C – Learning Objectives

G-V Standardized Curriculum Course 1 Learning Objectives

Table of Contents

Course 1 Overview			
Day 1	**Planned Hours**	**Ground**	**Systems Integration**
Aircraft General	1.0	7.0	0.0
Aircraft Manuals	1.0		
Auxiliary Power Unit	1.0		
Electrical System	4.0		
Day 2	**Planned Hours**	**Ground**	**Systems Integration**
Avionics and Communications	8.0	8.0	0.0
Day 3	**Planned Hours**	**Ground**	**Systems Integration**
Avionics and Communications	8.0	8.0	0.0
Day 4	**Planned Hours**	**Ground**	**Systems Integration**
Avionics and Communications	3.0	8.0	0.0
Powerplant	2.5		
Oil System	0.5		
Thrust Reverse	0.5		
Fire and Smoke Detection, Protection and Suppression	1.5		
Day 5	**Planned Hours**	**Ground**	**Systems Integration**
Hydraulic System	2.0	7.5	0.0
Flight Controls	2.0		
Landing Gear and Brakes	2.0		
Ice Protection	1.5		
Day 6	**Planned Hours**	**Ground**	**Systems Integration**
Flight Planning and Performance	8.0	8.0	0.0
Day 7	**Planned Hours**	**Ground**	**Systems Integration**
Flight Profiles and Maneuvers	2.0	8.00	0.0
CRM	4.0		
Weight and Balance	2.0		

Day 8	**Planned Hours**	**Ground**	**Systems Integration**	
Windshear	0.5	8.0	0.0	
MEL and CDL	0.5			
Pitot-static System	0.5			
Pneumatic and Environmental Systems	3.0			
Oxygen	0.5			
Lighting	0.5			
Preflight	1.5			
Ground School Completion Exam	1.0			
Day 9	**Planned Hours**	**Ground**	**Systems Integration**	
SIT 1*	2.0	0.0	2.0	
Day 10	**Planned Hours**	**Ground**	**Systems Integration**	
SIT 2*	4.0	0.0	4.0	
Day 11	**Planned Hours**	**Ground**	**Systems Integration**	
SIT 3*	4.0	0.0	4.0	
Simulator Session 1		**Brief**	**Crew**	**Single**
Preflight Inspection (Cockpit)		3.0	4.0	4.0 (2.0 hours of PF and 2.0 Hours of PM flight training)
Powerplant Start - Normal				
Use of Checklists				
Taxiing/Runway Operations				
Before Takeoff Checks				
Normal Takeoff and Climb				
Departure Procedure				
Steep Turns				
Stall Prevention, Partial Flap Configuration				
Stall Prevention, Clean Configuration - Low Altitude				
Stall Prevention, Landing Configuration				
Stick Pusher Demonstration				
Recovery from Nose Low Attitudes				
Recovery from Nose High Attitudes				
Arrival Procedures				
Precision Approach				
Precision Approach - Backup Instrumentation				
Missed Approach from a Precision Approach				

Normal Approach and Landing				
Landing from a Precision Approach				
Go-around/Rejected Landing				
Normal/Abnormal/Emergency Procedures/Operations: Radios, Nav Equipment, Instruments, FMS				
Normal/Abnormal/Emergency Procedures/Operations: Stall Warning/Avoidance Devices				
After Landing Procedures				
Parking and Securing				
Simulator Session 2		**Brief**	**Crew**	**Single**
Powerplant Start - Normal		3.0	4.0	2.0
Powerplant Start - Abnormal				
Use of Checklists				
Taxiing/Runway Operations				
Before Takeoff Checks				
Crosswind Takeoff				
Departure Procedure				
TCAS (Collision Avoidance Maneuver)				
Powerplant Failure (Including Shutdown/Restart)				
Procedures and Maneuvering with an Engine Out while executing the duties of a Pilot-in-Command (SIC Only)				
Holding				
Nonprecision Approach				
Nonprecision Approach - Manually Flown with Course Reversal				
Visual Approach				
Published Missed Approach				
Crosswind Landing				
Normal/Abnormal/Emergency Procedures/Operations: Powerplant				
Normal/Abnormal/Emergency Procedures/Operations: Auxiliary Power Unit (APU)				
Normal/Abnormal/Emergency Procedures/Operations: Fuel System				
Normal/Abnormal/Emergency Procedures/Operations: Electrical System				
Normal/Abnormal/Emergency Procedures/Operations: Autopilot/Flight Director				

Simulator Session 3		**Brief**	**Crew**	**Single**
Taxiing/Runway Operations		3.0	4.0	2.0
Before Takeoff Checks				
Crosswind Takeoff				
Instrument Takeoff				
Rejected Takeoff				
Powerplant Failure During Takeoff				
Departure Procedure				
Powerplant Failure (Including Shutdown/Restart)				
Arrival Procedures				
Holding				
Precision Approach				
Precision Approach, One Engine Inoperative - Manually Flown				
Nonprecision Approach - Backup Instrumentation				
Nonprecision Approach - Manually Flown with Course Reversal				
Missed Approach with One Engine Inoperative				
Visual Approach				
Normal Approach and Landing				
Crosswind Landing				
Landing from a Precision Approach				
Approach and Landing with a Powerplant Failure				
Normal/Abnormal/Emergency Procedures/Operations: Powerplant				
Normal/Abnormal/Emergency Procedures/Operations: Anti-ice and Deice Systems				
Normal/Abnormal/Emergency Procedures/Operations: Airframe Icing				
Normal/Abnormal/Emergency Procedures/Operations: Radios, Nav Equipment, Instruments, FMS				
Normal/Abnormal/Emergency Procedures/Operations: Autopilot/Flight Director				
Normal/Abnormal/Emergency Procedures/Operations: Pitot-Static System				
Normal/Abnormal/Emergency Procedures/Operations: In-flight Fire Drills				
Normal/Abnormal/Emergency Procedures/Operations: Smoke Control/Removal				
Normal/Abnormal/Emergency Procedures/Operations: Emergency Evacuation				
Simulator Session 4		**Brief**	**Crew**	**Single**

Taxiing/Runway Operations	3.0	4.0	2.0
Before Takeoff Checks			
Crosswind Takeoff			
Windshear on Takeoff			
Departure Procedure			
Steep Turns			
Recovery from Nose Low Attitudes			
Recovery from Nose High Attitudes			
Stall Prevention, Clean Configuration - High Altitude			
Stall Recovery with Idle Thrust			
TCAS (Collision Avoidance Maneuver)			
Visual Approach			
Nonprecision Approach			
Circling Approach			
Missed Approach			
Landing From a Circling Approach			
Crosswind Landing			
Go-around/Rejected Landing			
Landing from a No Flap or Nonstandard Flap Approach			
Windshear on Landing			
Normal/Abnormal/Emergency Procedures/Operations: Flap System			
Normal/Abnormal/Emergency Procedures/Operations: Autopilot/Flight Director			
Normal/Abnormal/Emergency Procedures/Operations: Hydraulic System			
Normal/Abnormal/Emergency Procedures/Operations: Flight Control System			
Normal/Abnormal/Emergency Procedures/Operations: Landing Gear and Brakes			
Normal/Abnormal/Emergency Procedures/Operations: Ground Proximity Warning System, WX Radar, Radio Altimeter, Transponder			
Normal/Abnormal/Emergency Procedures/Operations: Environmental/Air Conditioning System			
Normal/Abnormal/Emergency Procedures/Operations: Pressurization System			
Normal/Abnormal/Emergency Procedures/Operations: Decompression			

Normal/Abnormal/Emergency Procedures/Operations: Emergency Descent (Maximum Rate)				
After Landing Procedures				
Parking and Securing				
Simulator Session 5		**Brief**	**Crew**	**Single**
Preflight Inspection (Cockpit)		3.0	4.0	2.0
Powerplant Start - Normal				
Powerplant Start - Abnormal				
Taxiing/Runway Operations				
Before Takeoff Checks				
Instrument Takeoff				
Powerplant Failure During Takeoff				
Rejected Takeoff				
Departure Procedure				
Powerplant Failure (Including Shutdown/Restart)				
Stall Prevention, Clean Configuration - Low Altitude				
Stall Prevention, Partial Flap Configuration				
Stall Prevention, Landing Configuration				
Precision Approach				
Precision Approach, One Engine Inoperative - Manually Flown				
Missed Approach from a Precision Approach				
Missed Approach with One Engine Inoperative				
Missed Approach				
Visual Approach				
Crosswind Landing				
Landing from a Precision Approach				
Approach and Landing with a Powerplant Failure				
Normal/Abnormal/Emergency Procedures/Operations: Autopilot/Flight Director				
Normal/Abnormal/Emergency Procedures/Operations: Powerplant				
Normal/Abnormal/Emergency Procedures/Operations: In-flight Fire Drills				
Normal/Abnormal/Emergency Procedures/Operations: Flight Control System				
Normal/Abnormal/Emergency Procedures/Operations: Smoke Control/Removal				
Normal/Abnormal/Emergency Procedures/Operations: Emergency Evacuation				

Normal/Abnormal/Emergency Procedures/Operations: Pitot-Static System			
Simulator Session 6	**Brief**	**Crew**	**Single**
Preflight Inspection	3.0	4.0	2.0
Start Procedures			
Taxiing/Runway Operations			
Pretakeoff Checks			
Normal Takeoff			
Crosswind Takeoff			
Instrument Takeoff			
Takeoff with Powerplant Failure			
Rejected Takeoff			
Area Departure			
Steep Turns *(PIC only)*			
Stall Prevention (Approaches to Stalls)			
Powerplant Failure			
Area Arrival			
Holding			
Normal ILS Approach			
Engine-out ILS			
Coupled Approach			
Nonprecision Approach			
Second Nonprecision Approach *(PIC only)*			
Missed Approach from an ILS			
Second Missed Approach *(PIC only)*			
Circling Approach			
EFVS Approach			
Normal Landing			
Crosswind Landing			
Landing from an ILS			
Landing with an Engine Out			
Circling Approach to Landing			
Rejected Landing			
No-flap Approach to Landing *(PIC only)*			
EFVS Landing			
System Malfunction			
Maneuver by Partial Panel			
Unusual Attitude Recovery			
Simulator Session 7 (Optional LOFT)	**Brief**	**Crew**	**Single**
	2.0	4.0	4.0

LOS scenario(s) shall be constructed in accordance with AC 120-35D (Flightcrew Member Line-Operational Simulations: Line-Oriented Flight Training, Special Purpose Operational Training, Line Operational Evaluation).			

Ground School Learning Objectives

Day 1 Ground School Learning Objectives

Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can describe the operation of the airplane systems and components using correct terminology
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can explain immediate action items or memory items, if appropriate
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand Crew and Passenger Emergency Equipment - survival gear	Can explain the location, purpose and operation of emergency equipment in the aircraft
Aircraft General	Understand evacuation procedures and crew duties - Cabin Window Cracked procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand evacuation procedures and crew duties - Ditching procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand evacuation procedures and crew duties - External Baggage Door Not Secure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Aircraft General	Understand evacuation procedures and crew duties - Main Entrance Door Not Secure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand evacuation procedures and crew duties - Planned Airplane Evacuation procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand Specific Flight Characteristics	Can describe Any aircraft characteristics relevant to all weather operations, such as flight deck visibility cutoff angles and the effect on flight deck visibility of proper eye height, seat position or instrument lighting intensities related to transition through areas of varying brightness levels. Pilots should be aware of the effects on flight visibility related to use of different flap settings, approach speeds, use of various landing or taxi lights, and proper procedures for use of windshield wipers and rain repellent. If windshield defog, anti-ice, or de-icing systems affect forward visibility, pilots should be aware of those effects and be familiar with proper settings for use of that equipment related to low-visibility landing.

Aircraft General	Understand Specific Flight Characteristics	Can describe Visual reference information and address aircraft geometry limitations on visual references, actions to take with loss or partial loss of visual references, risks of inappropriate use of visual references, and necessary visual references for continuation after MDA or DA/DH. Issues discussed in Chapter 4, Procedures, for continuation or discontinuation of an approach should be comprehensively addressed.
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Aircraft Manuals	Understand Auxiliary Power Unit (APU)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that AFM guidelines supersede all other information
Aircraft Manuals	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - autopilot	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - emergency locator transmitter.	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Flight Management System (FMS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can obtain required navigation equipment for approach operations using WAAS or any operational restrictions/limitations, as outlined in the AFM, RFM, AFMS, OpSpec, MSpec, or LOA.
Aircraft Manuals	Understand Avionics and communications - ground-based navigation systems and components	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - indicating devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Radar	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - terrain awareness/warning/alert systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - transponder	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Emergency Equipment - emergency exits	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Equipment - oxygen system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Equipment - passenger oxygen system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Electrical System - circuit breakers and protection devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - controls	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - external and auxiliary power sources. (Ground power and APU)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - generators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - batteries	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Envelope protection—angle of attack warning and protection and speed protection	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - lavatory	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - powerplant	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - elevator	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - flaps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - rudder	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - speed brakes	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - spoilers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Flight Controls - Ailerons	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - trim systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - additives	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - capacity and quantities	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - controls and indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - cross-feeding	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - drains	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - fuel grade	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - fuel substitutions	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Fuel system - fueling and defueling procedures	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - pumps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - transferring	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - allowable types of fluid	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - capacity	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - pressure	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - pumps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - regulators/accumulators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - reservoirs	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Ice Protection - anti-ice & de-ice.	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Ice Protection - pitot-static system protection	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Ice Protection airfoil surfaces	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Ice Protection windshield	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - antiskid	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - brakes	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - extension/retraction system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - nosewheel steering	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Landing Gear - shock absorbers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - tires	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Lighting	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pitot Static System - Operation and power sources for other flight instruments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pneumatic and environmental system - pressurization	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pneumatic and environmental system - supply for ice protection systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Powerplant - turbine wheels	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - allowable types of oil	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - compressors	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - controls and indications	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - deicing, anti-icing	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - oil system capacity and quantities	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - thrust reverse	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can describe the operation of the airplane systems and components using correct terminology
Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can explain system or component limitations

Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can explain immediate action items or memory items, if appropriate
Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can explain system or component limitations
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Electrical System	Understand Electrical System - controls	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - controls	Can explain system or component limitations
Electrical System	Understand Electrical System - controls	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - controls	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - controls	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - controls	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Electrical System - external and auxiliary power sources. (Ground power and APU)	Can explain system or component limitations
Electrical System	Understand Electrical System - external and auxiliary power sources. (Ground power and APU)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - generators	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - generators	Can explain system or component limitations
Electrical System	Understand Electrical System - generators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - generators	Can explain immediate action items or memory items, if appropriate

Electrical System	Understand Electrical System - generators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - generators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Electrical System - indicators	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - indicators	Can explain system or component limitations
Electrical System	Understand Electrical System - indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - indicators	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - indicators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Electrical System - batteries	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - batteries	Can explain system or component limitations
Electrical System	Understand Electrical System - batteries	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Electrical System	Understand Electrical System - batteries	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - batteries	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - batteries	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Day 2, 3, and 4 Ground School Learning Objectives

Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e.,	Can differentiate between "substitute means of navigation" and "alternate means of navigation"

	non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that RNAV systems using GPS input may be used as an alternate means of navigation without restriction.
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain RAIM prediction requirements when using GPS as a substitute means of navigation
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S.	Can explain that RNAV systems using WAAS input may be used as an alternate means of navigation without restriction.

	National Airspace System (NAS)	
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that operators planning to use TSO-C145/-C146 equipment as a substitute means of navigation must check WAAS NOTAMs and confirm WAAS availability for the applicable operation and time
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that RNAV systems using DME/DME/IRU, without GPS input, may be used as an alternate means of navigation where valid DME/DME position updating is published as available (for example, by NOTAM or authorization).

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that in order to use a substitute means of navigation on departure procedures, pilots of aircraft with RNAV systems using DME/DME/IRU, without GPS input, must ensure their aircraft navigation system position is confirmed, within 1,000 feet, at the start point of takeoff roll. The use of an automatic or manual runway update is an acceptable means of compliance with this requirement. A navigation map display may also be used to confirm aircraft position, if pilot procedures and display resolution allow for compliance with the 1,000-foot tolerance requirement.
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain the definition of Alternate Means of Navigation
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can state the definition of RAIM

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain the definition of Substitute Means of Navigation
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can describe the ways in which a suitable RNAV system may be used
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that the ways in which a suitable RNAV system may be used still apply, even when a facility is identified as required

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that unless otherwise specified, an otherwise suitable RNAV system cannot be used for navigation on procedures that are identified as not authorized by notam. (For example, an operator may not use a RNAV system to navigate on a procedure affected by an expired or unsatisfactory flight inspection, or a procedure that is based upon a recently decommissioned NAVAID)
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that an otherwise suitable RNAV system cannot be used for substitution of the NAVAID providing lateral guidance for the final approach segment
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that an otherwise suitable RNAV system cannot be used for Lateral navigation on LOC-based courses (including LOC back-course guidance) without reference to raw LOC data

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that the navigation data should be current for the duration of the flight. If the Aeronautical Information Regulation and Control (AIRAC) cycle will change during flight, operators and pilots should establish procedures to ensure the accuracy of navigation data, including suitability of navigation facilities used to define the routes and procedures for flight. Traditionally, this has been accomplished by verifying electronic data against paper products
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that Pilots must extract waypoints, NAVAIDs, and fixes by name from the onboard navigation database and comply with the charted procedure or route
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that pilots may not manually enter published procedure or route waypoints via latitude/longitude, place/bearing, or place/bearing/distance into the aircraft system

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that Pilots are expected to accurately track procedure and route centerlines (CL), as depicted by onboard lateral deviation indicators (LDI), displays, and/or flight guidance during all operations described in this AC unless otherwise authorized to deviate by air traffic control (ATC) or in the instance of an emergency condition
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that Operators operating under parts 91K, 121, 125, 129, and 135 must also be equipped with at least one other independent navigation system in addition to an installed and operable RNAV system. This additional system must be suitable, in the event of loss of navigation capability of the RNAV system, for proceeding safely to a suitable airport and completing an instrument approach.
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that ADF equipment need not be installed and operational, although operators of aircraft without an ADF will be bound by the operational requirements defined in AC 90-108 and not have access to some procedures (that is, there may be instances when some operations might not be conducted without ADF equipment).

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that for the purposes of flight planning, any required alternate airport must have an available IAP that does not require the use of GPS.
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance –	Can explain immediate action items or memory items, if appropriate

	Broadcast (ADS-B) In and Out	
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - autopilot	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - autopilot	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - autopilot	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

	link, UHF/VHF/HF, satellite)	
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite) - Radio Failure / Mistune During a Dual Coupled ILS Approach	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Electronic Flight	Can explain immediate action items or memory items, if appropriate

	Instrument Systems (EFIS)	
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain the features of the PlaneView System
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the functional characteristics of the cursor control device
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Crew Alerting System (CAS) Caution Messages and Procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Synthetic Vision-Primary Flight Display Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can explain system or component limitations
Avionics and	Understand Avionics and	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Communications	communications - emergency locator transmitter.	
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that DPs and STARs are flown as RNAV 1 procedures. RNAV routes are flown as RNAV 2 unless otherwise specified
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that at system initialization, pilots must confirm the navigation database is current and verify the aircraft's present position.
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that RNAV DPs and STAR procedures must be retrieved by procedure name from the onboard navigation database and conform to the charted procedure
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that whenever possible, RNAV routes should be extracted from the database in their entirety, rather than loading RNAV route waypoints from the database into the flight plan individually. Selecting and inserting individual, named fixes from the database is permitted, provided all fixes along the published route to be flown are inserted
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that manual entry of waypoints using latitude/longitude or place/bearing is not permitted

Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots must not change any RNAV DP or STAR database waypoint type from a flyby to a flyover or vice versa.
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that flightcrews should crosscheck the cleared flight plan against charts or other applicable resources, as well as the navigation system textual display and the aircraft map display, if applicable
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verification of assigned route and correct entry of transitions into RNAV System/FMS
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verifying their aircraft navigation system is operating correctly and the correct runway and DP (including any applicable en route transition) are entered and properly depicted prior to flight
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verifying proper entry of their ATC assigned route upon initial clearance and after any subsequent change of route.
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verifying their aircraft navigation system is operating correctly and the transition and arrival runway is entered and properly displayed
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that For DPs, the pilot must be able to engage RNAV equipment to follow flight guidance for lateral RNAV no later than 500 feet above airport elevation.
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots must use a lateral deviation indicator (or equivalent navigation map display), flight director and/or autopilot in lateral navigation mode on RNAV 1 routes. The full-scale course deviation indicator (CDI) deflection value of ±1 NM is acceptable

Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots of aircraft without GPS/GNSS, using DME/DME/IRU, must ensure the aircraft navigation system position is confirmed, within 1,000 feet, at the start point of takeoff roll. The use of an automatic or manual runway update is an acceptable means of compliance with this requirement. A navigation map may also be used to confirm aircraft position, if pilot procedures and display resolution allow for compliance with the 1,000-foot tolerance requirement
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe the depiction of waypoint types (flyover and flyby) and path terminators
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe the required navigation equipment for operation on RNAV routes, DPs, and STARs (for example, DME/DME/IRU and GPS/GNSS)
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe system specific levels of automation, mode annunciations, mode changes, alerts, interactions, reversions and degradation
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe the functional interaction with other aircraft systems
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe the meaning and appropriateness of route discontinuities as well as related flightcrew procedures
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe the monitoring procedures for each phase of flight (for example, monitor PROG or LEGS page)
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain the types of navigation sensors (for example, DME, IRU, GPS/GNSS) utilized by the RNAV system and associated system prioritization/weighting/logic

Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain turn anticipation regarding speed and altitude effects
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe proper interpretation of electronic displays and symbols
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS) - FMS Powers Up in Single or Independent Mode procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that the onboard navigation data must be current and appropriate for the region of intended operation and must include the navigation aids, waypoints, and relevant coded terminal airspace procedures for the departure, arrival, and alternate airfields.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that the pilot must notify ATC of any loss of the RNAV capability, together with the proposed course of action. If unable to comply with the requirements of an RNAV procedure, pilots must advise ATC as soon as possible.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that RNAV 1 requires a total system error of not more than 1 nautical mile (NM) for 95 percent of the total flight time.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that RNAV 2 requires a total system error of not more than 2 NM for 95 percent of the total flight time
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that Receiver Autonomous Integrity Monitoring (RAIM) is a technique used within a GPS receiver/processor to monitor GPS signal performance and is achieved by a consistency check among redundant measurements.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that an Instrument Departure Procedure (DP) is a published instrument flight rules (IFR) procedure providing obstruction clearance from the terminal area to the en route structure.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that a SID is a published IFR air traffic control (ATC) DP providing obstacle clearance and a transition from the terminal area to the en route structure.

Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that a Standard Terminal Arrival (STAR) is a published IFR ATC arrival procedure that provides a transition from the en route structure to the terminal area
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that an RNAV route within the high or low altitude structure of the contiguous United States, is designated by a "Q" or "T"
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that pilots operating aircraft with an approved barometric vertical navigation (baro-VNAV) system may continue to use their baro-VNAV system while executing U.S. RNAV routes, DPs, and STARs, however operators must ensure compliance with all altitude constraints as published in the procedure by reference to the barometric altimeter
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that operation on U.S. RNAV routes, DPs and STARs does not require the pilot to monitor ground-based Navigational Aids (NAVAID) used in position updating unless required by the Airplane Flight Manual (AFM), pilot's operating handbook (POH), or the operating manual for their avionics
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that operation on U.S. RNAV routes, DPs and STARs bases obstacle clearance assessments on the associated required RNAV system performance
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain system or component limitations

Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS) - GPS / SBAS Reception Loss During RNAV (GPS) Approach to Minima procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe the performance requirement and the fail-down capabilities of the system
Avionics and Communications	Understand Avionics and communications - GPS instrument	Can describe the meaning and proper use of aircraft equipment/navigation suffixes

	approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can explain instrument procedure characteristics as determined from chart depiction and textual description
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can state that manual change of waypoints included in the approach is prohibited
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima	Can differentiate between ILS flight guidance cues and LPV guidance cues

	using the wide area augmentation system	
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe levels of automation, mode annunciations, changes, alerts, interactions, reversions, and degradations.
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe functional integration with other aircraft systems
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can describe the navigation systems to be used, such as the instrument landing system (ILS) with its associated critical area protection criteria, marker beacons, distance measuring equipment (DME), compass locators, or other relevant systems should be addressed to the extent necessary for safe operations. For Ground Based Augmentation System (GBAS) Landing System (GLS)), any characteristics or constraints regarding that method of navigation must be addressed (e.g., proper procedure waypoint selection and use, integrity assurance, loss of satellite availability or failure, terrain masking).

Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can identify Visual aids including Approach Lighting Systems (ALS), runway lighting systems, markings/lighting associated with declared distances, taxiway lighting, color coding of the centerline lighting for distance remaining, Low-Visibility Operations (LVO)/Surface Movement Guidance and Control System (SMGCS) lighting, and any other lighting systems relevant to an AWO environment should be addressed.
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can identify automatic or perform manual input requiring parameters, such as inbound course or automatic/manually tuned navigation frequencies, the importance of checking that proper selections have been made to ensure appropriate system performance, and the sequence and management of any mode changes.
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - ground-based	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

	navigation systems and components	
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and Communications - HUD	Can identify all HUD symbology
Avionics and Communications	Understand Avionics and Communications - HUD	Can explain the FPV
Avionics and Communications	Understand Avionics and Communications - HUD	Can explain non-conformal LDI
Avionics and Communications	Understand Avionics and Communications - HUD	Can recognize unusual attitudes when using the HUD
Avionics and Communications	Understand Avionics and Communications - HUD	Can describe crew coordination when using the HUD
Avionics and Communications	Understand Avionics and Communications - HUD	Can describe crew briefings and callouts
Avionics and Communications	Understand Avionics and Communications - HUD	Can describe duties of the pilot flying and pilot monitoring when using HUD
Avionics and Communications	Understand Avionics and Communications - HUD	Can interpret HUD II symbology including caged FPV, non-conformal LDI, and unusual attitudes
Avionics and	Understand Avionics and	Can describe the operation of the airplane systems and components using correct terminology

Communications	communications - indicating devices	
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - indicating devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - indicating devices - (EVS) Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - (HUD) Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Charts Function DU 2 and 3 Inoperative procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices -	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

	Charts Function Failure procedure	
Avionics and Communications	Understand Avionics and communications - indicating devices - Equipment Loss While in RVSM Airspace procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Video Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and	Understand Avionics and communications -	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Communications	Inertial Navigation Systems (INS) - IRS Align in Motion procedure	
Avionics and Communications	Understand Avionics and Communications - Instruments	Can interpret situation information displays, as applicable.
Avionics and Communications	Understand Avionics and Communications - Instruments	Can describe proper application of MDA, DA/DH, or AH, including proper use and setting of altimeter bugs, use of the inner marker (IM) where authorized or required due to irregular underlying terrain, and appropriate altimeter setting procedures for the barometric altimeter consistent with the operator's practice of using either altimeter setting referenced to airport ambient local pressure (QNH) or altimeter setting referenced to airport field elevation (QFE).
Avionics and Communications	Understand Avionics and communications - Radar	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Radar	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Radar	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Radar	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Radar	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Radar	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain instrument procedure characteristics as determined from chart depiction and textual description
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret the depiction of waypoint types (flyover and flyby) as well as associated aircraft flightpaths
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain that a waypoint may be a flyover in one procedure and the same waypoint may also be a flyby in another procedure;
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries	Can list required equipment for RNP operations

	which adopt ICAO standards for RNP operations.	
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret aircraft automation, mode annunciations, changes, alerts, interactions, reversions, and degradations
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain functional integration with other aircraft systems
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the meaning of route discontinuities and appropriate flightcrew procedures;
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States,	Can list the types of navigation sensors used by the RNP system and their annunciations

	oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain turn anticipation with consideration to speed and altitude effects
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret electronic displays and symbols
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe appropriate selection of course deviation indicator (CDI) scaling (lateral deviation display scaling)

Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the importance of maintaining the published path and maximum airspeeds while performing RNP operations with Radius to Fix (RF) legs (if applicable)
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret the depiction of path terminators, associated aircraft flightpaths, altitude, and speed restrictions
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe flightcrew contingency procedures for a loss of RNP capability; and
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries	Can explain the performance requirement to couple the autopilot (AP)/flight director (FD) to the navigation system's lateral guidance on RNP procedures, if required

	which adopt ICAO standards for RNP operations.	
Avionics and Communications	Understand Avionics and Communications - Supporting Systems	Can interpret Other associated instrumentation and displays including any head-up display, guidance system, vision system, monitoring displays, status displays, mode annunciation displays, failure or warning annunciations, and associated system status displays that may be relevant. When such airborne systems are used as the basis for category(s) of minima (e.g., HUD or SVGS for Special Authorization (SA) CAT I; AP, F/D, or HUD for CAT I Landing Minima with Reduced Lighting (RVR 1800)), training should address the relationships between the various system components and the minima for which they are required.
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can explain immediate action items or memory items, if appropriate

Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems - (EGPWS) Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can define TA (Traffic Advisory) as Aural voice and display information provided by TCAS to a flightcrew, identifying the location of nearby traffic that meets certain minimum separation criteria
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can describe TCAS on-ground performance
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can appreciate that the see-and-avoid concept is still valid even with TCAS
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can define Increase, reversal, crossing, and weakened Ras
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can appreciate that That TCAS II assures separation from aircraft equipped with an altitude-reporting transponder;

Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain the detection and protection provided by TCAS against altitude-reporting and non-altitude-reporting intruders
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can appreciate that the system detects multiple aircraft
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain TCAS to TCAS coordination
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can appreciate the potential impact of not following RAs
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can differentiate between TCAS surveillance range versus display range
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain when an intruder will not be displayed
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain the normal, expected pilot response to TAs, RAs, use of displayed traffic information to establish visual contact, and constraints on maneuvering based solely on Tas.
Avionics and	Understand Avionics and communications -	Can state RA inhibit altitudes

Communications	traffic awareness/warning/ avoidance systems	
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can discuss the risks inherent to an inability to comply with an RA due to aircraft performance limitations after an engine failure, and appropriate response to RAs in limiting performance conditions, such as during heavy weight takeoff or while en route at maximum altitude for a particular weight.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain communication and coordination with ATC related to or following a TCAS event, when to contact ATC, and accepted TCAS phraseology.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can identify TCAS symbology
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain radar altimeter inputs to TCAS, and weather radar/electronic flight information system (EFIS) interfaces
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can demonstrate familiarization with AFM provisions including information on TCAS modes of operation; normal and atypical flightcrew operating procedures; and response to TAs, RAs, and any AFM limitations.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can demonstrate familiarization with MEL procedures related to TCAS
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can describe appropriate pilot response to TCAS RAs and TAs, ATC clearance compliances and nuisance alerts.

Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can sate that TCAS interrogates other transponder-equipped aircraft within a nominal range of 14 nautical miles (NM).
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can appreciate that TCAS surveillance range can be reduced in geographic areas with a large number of ground interrogators and/or TCAS II equipped aircraft
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can state that TAs can be issued against any transponder-equipped aircraft which responds to the ICAO Mode C interrogations, even if the aircraft does not have altitude reporting capability.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can state that RAs can be issued only against aircraft that are reporting altitude and only in the vertical plane
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can state that RAs issued against a TCAS-equipped intruder are coordinated to ensure the issuance of complementary RAs
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain that TCAS advisories are based on time to CPA rather than distance. The time must be short and vertical separation must be small, or projected to be small, before an advisory can be issued. The separation standards provided by Air Traffic Services (ATS) are different from the missed distances against which TCAS issues an alert
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain that the time must be short and vertical separation must be small, or projected to be small, before an advisory can be issued.

Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that the separation standards provided by Air Traffic Services (ATS) are different from the missed distances against which TCAS issues an alert
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that the thresholds for issuing a TA or RA vary with altitude, and are larger at higher altitudes.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that TA tau threshold (trigger point) varies from 20 to 48 seconds before the projected CPA and the RA tau threshold varies from 15 to 35 seconds
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain that RAs are chosen to provide the desired vertical missed distance at CPA. As a result, RAs can instruct a climb or descent through the intruder aircraft's altitude.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that TCAS will neither track nor display non-transponder-equipped aircraft, nor aircraft not responding to TCAS Mode C interrogations.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain that TCAS will automatically fail if the input from the aircraft's barometric altimeter, radio altimeter, or transponder is lost
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that TCAS may not display all proximate transponder-equipped aircraft in areas of high-density traffic.

Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that, Because of design limitations, the bearing displayed by TCAS is not sufficiently accurate to support the initiation of horizontal maneuvers based solely on the traffic display
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that Because of design limitations, TCAS will not track intruders with a Vertical Speed (VS) in excess of 10,000 feet per minute (fpm). In addition, the design implementation may result in some short-term errors in the tracked VS of an intruder during periods of high vertical acceleration by the intruder
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that Ground proximity warning system (GPWS) warnings and windshear warnings take precedence over TCAS advisories. When either a GPWS or windshear warning is active, TCAS aural annunciations will be inhibited.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that “INCREASE DESCENT” RAs are inhibited below 1,450 (±100) feet AGL
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that “DESCEND” RAs are inhibited below 1,100 (±100) feet AGL.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that all RAs are inhibited below 1,000 (±100) feet AGL.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that all TCAS aural annunciations are inhibited below 500 (±100) feet AGL.

Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can appreciate that if your aircraft type provides RA climb and increase climb commands at certified ceiling, the commands are to be followed.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can demonstrate the proper use of controls including appreciate that low display ranges are used in the terminal area and the higher display ranges are used in the en route environment and in the transition between the terminal and en route environment.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can demonstrate the proper use of controls including appreciate that if available, recommended usage of the "ABOVE/BELOW" mode selector. "ABOVE" mode should be used during climb and the "BELOW" mode should be used during descent.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can demonstrate the proper use of controls including appreciate that the configuration of the display does not affect the TCAS surveillance volume.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can demonstrate the proper use of controls including appreciate the benefits of selecting lower ranges when an advisory is issued, in order to increase display resolution
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can demonstrate the proper use of controls including differentiate between the display of absolute altitude and relative altitude and explain the limitations of using this display if a barometric correction is not provided to TCAS.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can execute proper configuration to display the appropriate TCAS information without eliminating the display of other needed information.
Avionics and	Understand Avionics and communications -	Can recognize traffic within the selected display range that is not proximate traffic, (not causing a TA or RA to be issued).

Communic ations	traffic awareness/warning/ avoidance systems	
Avionics and Communic ations	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can recognize proximate traffic in the display, i.e., traffic that is within 6 NM and ±1200 feet.
Avionics and Communic ations	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can recognize non-altitude reporting traffic in the display.
Avionics and Communic ations	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can recognize no bearing TAs and RAs
Avionics and Communic ations	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can determine when it is necessary to change the selected range for off-scale TAs and RAs to ensure that all available information on the intruder is displayed.
Avionics and Communic ations	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can describe how to select the minimum available display range which allows the display of TAs to provide the maximum display resolution
Avionics and Communic ations	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can describe how to select the minimum available display range which allows the display of TAs to provide the maximum display resolution
Avionics and Communic ations	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can appreciate that navigation displays oriented on track-up may require a pilot to make a mental adjustment for drift angle when assessing the bearing of proximate traffic.

Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain the meaning of the red and green areas displayed on the RA display and when the green areas will and will not be displayed.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate general familiarization with the operator's guidance for the use of "TA-ONLY."
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that if "TA-ONLY" is not selected when an airport is conducting simultaneous operations from parallel runways separated by less than 1,200 feet, and to some intersecting runways, RAs can be expected
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that in TA mode, the TA aural annunciation is inhibited below 500 feet AGL. As a result, TAs issued below 500 feet AGL may not be noticed unless the TA display is included in the routine instrument scan.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that in TA-ONLY mode, TAs will be issued at the time an RA is normally issued.
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe the division of duties between Pilot Flying (PF) and pilot monitoring (PM)
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can state the expected callouts during a TA or RA
Avionics and	Understand Avionics and communications -	Can describe proper communications with ATC during a TA or RA

Communications	traffic awareness/warning/ avoidance systems	
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can describe the conditions under which an RA may not be followed and who will make this decision
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems -	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

	TCAS Failure procedure	
Avionics and Communications	Understand Avionics and communications - transponder	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - transponder	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - transponder	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - transponder	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - transponder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - transponder	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand EFVS Operations	Can describe applicable airworthiness criteria for EFVS-TD capable systems IAW FAR § 91.176(a)(1) as described in an Airplane Flight Manual or its supplement, AFM(S).
Avionics and Communications	Understand EFVS Operations	Can describe applicable airworthiness criteria for EFVS-100 capable systems IAW FAR § 91.176(b)(1) as described in an Airplane Flight Manual or its supplement, AFM(S).

Avionics and Communications	Understand EFVS Operations	Can explain all required pilot flightcrew members must have received and logged the appropriate ground training in EFVS operations IAW FAR § 61.66(a)(1). All PICs or those manipulating the controls (PF) of an aircraft during EFVS operations must have received and logged the appropriate flight training in EFVS operations IAW FAR § 61.66(b)(1). A logbook endorsement or record of training completion is required for the appropriate EFVS operation (EFVS-TD and/or EFVS-100) unless using a military, 61.66(f) exemption OR the pilot can show documentation of satisfactory completion of EFVS-100 operations prior to March 13, 2018.
Avionics and Communications	Understand EFVS Operations	Can explain the checking requirements for EFVS operations as an approved air carrier. For Part 135 operations, FAR § 135.293(i) requires competency checks completed under FAR § 135.293(b) include tasks appropriate to the EFVS operations the certificate holder is authorized to conduct.
Avionics and Communications	Understand EFVS Operations	Can explain pilots conducting EFVS operations for parts 91K, 121, 125, and 135 maintain recent flight experience through satisfactory completion of EFVS tasks and maneuvers during their recurring proficiency checks or competency checks.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS operational credit is credit for a portion of flight visibility prescribed by the IAP being flown that is satisfied by the enhanced image provided by the EFVS. EFVS operational credit is authorized in FAA OpSpec C048.
Avionics and Communications	Understand EFVS Operations	Can describe EFVS operational credit is used by authorized parts 121, 125, and 135 CHs and part 129 foreign air carriers to determine minimum visibilities to: 1. Dispatch, release, or take off a flight under instrument flight rules (IFR) when the forecast weather at the destination airport is equal to or greater than the authorized minimums for use with an EFVS (refer to §§ 121.613, 125.361, and 135.219); and 2. Begin, execute, or continue an approach when the weather is reported to be equal to or greater than the authorized minimums for use with an EFVS (refer to §§ 121.651, 125.325, 125.381, and 135.225).

Avionics and Communications	Understand EFVS Operations	Can explain a standard EFVS credit. The Flight Technologies and Procedures Division evaluates available performance data from numerous sources such as other operational evaluations and Original Equipment Manufacturer (OEM) demonstrations conducted in the type design approval process. A standard credit is recommended for an installed EFVS sensor and is published in the Operational Suitability Report (OSR), Operational Credit for Enhanced Flight Vision Systems (EFVS). An operator applying for EFVS operational credit that elects to use the standard credit would not need to demonstrate system performance; however, this does not restrict an operator from conducting their own performance demonstration to determine operational credit. Industry consensus methodology for performance demonstrations is contained in RTCA DO-390, Test Procedures for Quantified Visual Advantage. The OSR can be found at https://drs.faa.gov/browse/excelExternalWindow/bb448b0f-d979-42a2-8d67-9346707e6d29.
Avionics and Communications	Understand EFVS Operations	Can explain Minimum Visibility with Use of EFVS for Parts 121, 125, 129, and 135. OpSpec C048 may include authorization to use a credit to reduce the visibility required for operating without the use of the EFVS (see Table 1, Sample Minimum Visibility Table). The credits based on the demonstrated EFVS sensor performance.
Avionics and Communications	Understand EFVS Operations	Can explain Landing Weather Minimums for Recently Upgraded PICs. Recently upgraded PICs are subject to § 121.652, § 125.379, or § 135.225(e), which temporarily raise IAP minimums to afford an extra layer of safety while experience operating as PIC is gained. EFVS minimum visibility should not be used until the requirements of these regulations are met, as this may negate the safety margins intended by these regulations.
Avionics and Communications	Understand EFVS Operations	Can explain Alternate Airport Weather. The use of EFVS minimum visibility is not advised for alternate airport planning. However, once in flight, a pilot may use EFVS minimum visibilities to begin an approach at an alternate airport.

Avionics and Communications	Understand EFVS Operations	Can ensure considerations for Part 91K, 125, or 135 Pilot Training Programs. Initial training for pilots under part 91K, 125, or 135 must include the required elements listed in FAR § 61.66(a)(2) and (b)(2). The required elements and suggested methods of meeting said requirements can be found in Appendix A. Part 91K, 125, or 135 competency checks should include appropriate EFVS tasks.
Avionics and Communications	Understand EFVS Operations	Can demonstrate familiarization with an overview per FAR § 91.176, parts 121, 125, and 135 CHs require OpSpec C048 to conduct EFVS-100 or EFVS-TD operations, and may include provisions to use EFVS operational credit. Part 91K program managers require MSpec C048 to conduct EFVS-100 or EFVS-TD operations. MSpec C048 does not include provisions to use EFVS operational credit.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 1. Airworthiness Documentation. Excerpts from the AFM(S) that identify the EFVS operation(s) for which the system received airworthiness approval. The FAA recommends incorporating any procedures or operating limitations in the AFM(S) into the approved EFVS training curriculum and operating manuals.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 2. Operating Manuals. Applicable sections of operating manuals (e.g., Airplane Operations Manual (AOM), Flight Operations Manual (FOM), pilot's operating handbook (POH), and/or quick reference handbook (QRH)) that contain the operator's procedures or provisions for using an EFVS. These procedures can be incorporated in the operator's approved EFVS training curriculum and in the AFM(S).
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 3. EFVS Pilot Training Curriculum. A proposed EFVS training curriculum that ensures the pilot meet the requirements of § 61.66. Paragraph 9 and Appendix A contain information for developing a training curriculum to include the required ground training subjects and flight training tasks required by § 61.66(a) and (b). It is acceptable to incorporate a previously approved curriculum provided by a part 141 or 142 school.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 4. EFVS Provisions in the MEL. If the applicant is seeking MEL relief for EFVS, they should provide the proposed MEL containing appropriate operations and maintenance procedures that consider all applicable components of the EFVS during MEL submission, review, and approval.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 5. Application for Operational Credit. Operators operating under parts 121, 125, and 135 CHs applying for authorization to use EFVS operational credit should provide: a. A statement of proposed credit. Operators may propose use of the standard credit published in the EFVS OSR, which is based on previous demonstrations of system visual advantage. When an operator elects to use the standard credit, it is not necessary to demonstrate visual advantage during the operational demonstration. If the applicant elects to perform their own demonstration, AC 20-167 provides methods that can be used to demonstrate quantified visual advantage in the certification process. b. EFVS training curriculum for dispatchers or other persons exercising operational control, as described in paragraph 9 and Appendix C. c. Dispatch procedures manual or a general operations manual, as applicable, containing procedures for using the authorized EFVS operational credit to determine the minimum visibilities for use with EFVS.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 6. EFVS Maintenance Procedures. EFVS maintenance procedures or programs as described in Appendix B. If the applicant is responsible for the training of maintenance personnel, the applicant can also provide an EFVS training curriculum for maintenance personnel, as described in paragraph 9 and Appendix B.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of EFVS Operational Demonstration for Parts 91K, 121, 125, and 135 Applications. The FAA's process for approval and acceptance includes observing and evaluating the operator's ability to perform the proposed operation(s) in accordance with the procedures, guidelines, and parameters described in the operator's formal application. The means for meeting the operational demonstration objectives and an appropriate timeline are established through an agreement between the operator and the responsible Flight Standards Safety Assurance office. The are many acceptable means by which an operational demonstration can be accomplished (e.g., tabletop exercises, simulators, classroom observations, observations of line operations, observations of training flights, or any other agreed-upon means).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(i) can demonstrate an overview of the regulations relevant to EFVS operations. A list of the regulations is in Appendix D, Related Regulations and Guidance. Appendix D includes 61.66, 91.1065, 121.407, 121.409, 121.441 including Appendices F and H, 125.287, 135.293, 91.176, 91.189(d) and (e), 91.1039, 121.651, 125.325, 125.381, 135.225, 91.905, AC 20-167, AC 61-65, AC 120-54, AC 120-57, AC 120-71, and AC 120-118.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(i) can demonstrate an overview of an AFM or its supplement (AFM(S)) or other manufacturer documentation that specifies the type of EFVS operation the EFVS is certified to conduct, specifies performance applicable to the use of operational credit, or defines specific procedures, conditions, or limitations associated with operating the EFVS. In some cases, procedures described in an AFM(S) may be more restrictive than the regulations.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the characteristics of the enhanced imagery provided by an EFVS. An EFVS image must be real-time, conformal, and sensor-based. Imagery that is computer-generated from a database, such as a synthetic image, cannot be used to conduct an EFVS operation.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the symbology and equipment requirements to be used for EFVS operations to touchdown and rollout (EFVS-TD) operations listed under 14 CFR part 91, § 91.176(a)(1).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the symbology and equipment requirements of an EFVS to be used for EFVS operations to 100 feet above the touchdown zone elevation (TDZE) (EFVS-100) operations listed under § 91.176(b)(1).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the controls for the EFVS image to include display brightness, contrast, and image modes.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the control for turning the EFVS image on or off. This control is important, because if the sensor imagery were to obscure the pilot's view of the outside scene, the pilot should have a readily available means to immediately remove the sensor imagery from the Head-Up Display (HUD). However, in order to continue an EFVS operation, the pilot should reactivate the image as soon as possible.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain how computer-generated synthetic elements are presented in the image, if applicable. Some systems may integrate synthetic vision elements into the image displayed on the HUD. A pilot should be able to differentiate between the sensor-based elements and the computer-generated elements.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) explain the runway and extended runway centerline symbology presented during the approach phase.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the field of view (FOV) of the EFVS display.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can explain the imaging technology of the EFVS sensor and the related limitations (i.e., light detection, obstacle detection, weather types, and FOV). The AFM(S) may specify any limitations or demonstrated performance applicable to the installed EFVS. An EFVS can display imagery that may significantly improve a pilot's capability to detect approach lights and visual references of the runway environment that may not otherwise be visible using natural vision. Not all EFVS sensors have the same imaging capabilities. Some sensors may image particular materials and some may focus in specific energy spectrums. Some sensor technologies are more affected by certain weather conditions (e.g., obscurations and precipitation). Some systems utilize multiple sensors to combine the benefits from different technologies.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can demonstrate an overview on interpreting a sensor-generated scene presented by the EFVS. Images may have characteristics and contain artifacts that are unique to the sensor technology, EFVS image processing software, or display characteristics (i.e., monochrome colors). An external scene generated from infrared technology may be different from a scene generated from another technology or combination of technologies.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can demonstrate an overview of image anomalies of the installed EFVS. Anomalies such as “noise,” “blooming,” parallax, and other visual effects may be more prevalent in different EFVS installations.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of flight planning considerations for sensor performance and limitations.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can explain the optimal EFVS settings for different phases of flight and meteorological conditions.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of techniques for identifying visual references with natural vision at 100 feet above the TDZE for EFVS-100 operations. There may be several techniques that crews can use to ensure that visual references are seen with natural vision while continuing to use the EFVS image. It is important that these techniques do not reinforce deactivating the EFVS image more than momentarily during the EFVS operation.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of considerations for conducting EFVS operations with a limited EFVS FOV. A combination of crosswind correction, approach course offset, and the lateral FOV may result in the inability of the pilot to acquire and maintain visual references.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of considerations for executing a go-around below a DA/DH or MDA. Whether a pilot is using an EFVS or natural vision, obstacle clearance should not be assumed when initiating a go-around below a DA/DH or MDA or after the missed approach point. The missed approach procedure should be thoroughly briefed and accurately flown, and may need additional climb performance beyond the standard 200 feet per nautical mile to ensure adequate obstacle clearance.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of the considerations for visual segment obstacle clearance. Pilots using an EFVS should be careful not to conclude that the flightpath is free of obstacles because no obstacles are distinctly visible in the EFVS image. The approach procedure should be thoroughly briefed and accurately flown.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of the considerations for conducting EFVS operations on special instrument approach procedures (IAP). Operators that have a specific approval from the FAA to conduct instrument approaches using special IAPs should evaluate those instrument procedures to determine their compatibility with EFVS operations. These procedures may have nonstandard features or special conditions that may not be compatible with EFVS operations or the performance of an EFVS sensor.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of the considerations for conducting taxi operations after conducting an EFVS operation. Once the EFVS operation is complete, the pilot may have to taxi at an airport with Low-Visibility Operations (LVO)/Surface Movement Guidance and Control System (SMGCS) operations in effect. Although an EFVS may provide some increased situation awareness during taxi operations, natural vision is still essential.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vi) can demonstrate an overview of the effect of obscuration types, precipitation conditions, and low ceilings or cloud layers as contributing factors to the variable and unpredictable characteristics of EFVS sensor performance or EFVS sensor and image quality.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vi) demonstrate an overview of visibility reporting equipment (e.g., Runway Visual Range (RVR), automated surface observing system (ASOS), and Automated Weather Observing System (AWOS)) and their limitations, reporting increments, and relationship to actual flight visibility on the approach.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the operational concepts and the procedures used in EFVS-TD operations, as applicable.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the operational concepts and the procedures used in EFVS-100 operations, as applicable.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following system preflight and in-flight procedures: a. An integrity check of the sensor window.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following system preflight and in-flight procedures: b. System tests and warmup time.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following system preflight and in-flight procedures: c. System control adjustments, to include appropriate setting of EFVS contrast, brightness, and symbology.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following system preflight and in-flight procedures: d. EFVS image alignment procedures with the natural vision image.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: a. Callouts for continuing descent below the DA/DH or MDA using the EFVS.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: b. Callouts for transition from enhanced image to natural vision at 100 feet above the TDZE during an EFVS-100 operation.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: c. Callouts to clearly communicate the decision to land or go around.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: d. Callouts for abnormal EFVS operations.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: a. Expectations of system performance and limitations in reported weather conditions and a minimum visibility for the use of an EFVS (if applicable).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: b. EFVS callouts.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following items to be briefed prior to initiating an approach using the EFVS: c. Other approach considerations that may affect EFVS operations such as final approach offsets and ground infrastructure.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: d. Missed approach considerations and procedure.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following items to be briefed prior to initiating an approach using the EFVS: e. The taxi operation considerations in reported weather conditions.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the PM use of the repeater display during EFVS-TD operations. The PM uses the display to assess the safe conduct of the approach, landing, and rollout, and intervene, if necessary, in visibilities where natural vision may not be sufficient.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the procedure used for determining minimum visibility for use of EFVS for the purpose of releasing the flight or executing an approach, as applicable.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can demonstrate an overview of techniques for identifying EFVS system failures and corresponding procedures. A proper cross-check of the HUD instrumentation presentations against the EFVS sensor image could help recognize malfunctions of the navigation equipment or improper presentation of elements in the visual scene during the approach. In the event any required component fails during an EFVS operation until touchdown, the PF should initiate a go-around. However, this does not preclude a pilot's authority to continue to a landing and rollout if the pilot considers that a safer course of action.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(viii) can integrate the following: it is necessary for the pilot training curriculum to include the interpretation of approach and runway lighting systems and their display characteristics when using an EFVS. This could be accomplished by including an overview of different light sources used in airport and approach lighting systems and the ability of the EFVS to detect them. An EFVS based only on infrared sensor technology may not be capable of imaging light-emitting diode (LED) lighting because energy is not emitted in an infrared spectrum. It is important that pilots are familiar with the potential use of LEDs at their destination and any corresponding limitations of their EFVS. For more information, please refer to Information for Operators (InFO) 11004, Enhanced Flight Vision System (EFVS), Enhanced Vision Systems (EVS), and Night Vision Goggles (NVG) Compatibility with Light-Emitting Diodes (LEDs) at Airports and on Obstacles. You can find InFO 11004 at https://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info.
Avionics and Communications	Understand EFVS Operations	Can explain those portions of this chapter that relate to EFVS flight operations and limitations, including the Airplane Flight Manual or Rotorcraft Flight Manual limitations.
Avionics and	Understand EFVS Operations	Can explain EFVS sensor imagery, required aircraft flight information, and flight symbology.

Communications		
Avionics and Communications	Understand EFVS Operations	Can explain EFVS display, controls, modes, features, symbology, annunciations, and associated systems and components.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS sensor performance, sensor limitations, scene interpretation, visual anomalies, and other visual effects.
Avionics and Communications	Understand EFVS Operations	Can explain preflight planning and operational considerations associated with using EFVS during taxi, takeoff, climb, cruise, descent and landing phases of flight, including the use of EFVS for instrument approaches, operating below DA/DH or MDA, executing missed approaches, landing, rollout, and balked landings.
Avionics and Communications	Understand EFVS Operations	Can explain weather associated with low visibility conditions and its effect on EFVS performance.
Avionics and Communications	Understand EFVS Operations	Can explain normal, abnormal, emergency, and crew coordination procedures when using EFVS.
Avionics and Communications	Understand EFVS Operations	Can interpret approach and runway lighting systems and their display characteristics when using an EFVS.
Avionics and Communications	Understand EFVS Operations	Can demonstrate an understanding of the applicable EFVS equipment airworthiness requirements for operations to touchdown and rollout. This includes a displayed EFVS sensor image for the pilot monitoring where the symbology does not obscure the runway environment. See 91.176(a)(1)(i)(A) through (F) and (ii) for details.
Avionics and Communications	Understand EFVS Operations	Can ensure the pilot conducting the EFVS operation may not use circling minimums.
Avionics and	Understand EFVS Operations	Each required pilot flightcrew member must demonstrate adequate knowledge of, and familiarity with, the aircraft, the EFVS, and the procedures to be used.

Communic ations		
Avionics and Communic ations	Understand EFVS Operations	Can ensure the aircraft must be equipped with, and the pilot flying must use, an operable EFVS that meets the equipment requirements of paragraph (a)(1) of this section.
Avionics and Communic ations	Understand EFVS Operations	Ensure when a minimum flightcrew of more than one pilot required, the pilot monitoring must use the display specified in paragraph (a)(1)(ii) to monitor and assess the safe conduct of the approach, landing, and rollout.
Avionics and Communic ations	Understand EFVS Operations	Can appreciate why the aircraft must continuously be in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal maneuvers.
Avionics and Communic ations	Understand EFVS Operations	Appreciate why the descent rate must allow touchdown to occur within the touchdown zone of the runway of intended landing.
Avionics and Communic ations	Understand EFVS Operations	Can ensure a person exercising the privileges of a pilot certificate issued under this chapter, any person serving as a required pilot flightcrew member of a U.S.-registered aircraft, or any person serving as a required pilot flightcrew member for a part 121, 125, or 135 operators, must be qualified in accordance with part 61 and, as applicable, the training, testing, and qualification provisions of subpart K of this part, part 121, 125, or 135 of this chapter that apply to the operation;
Avionics and Communic ations	Understand EFVS Operations	Can ensure each person acting as a required pilot flightcrew member for a foreign air carrier subject to part 129, or any person serving as a required pilot flightcrew member of a foreign registered aircraft, must be qualified in accordance with the training requirements of the civil aviation authority of the State of the operator for the EFVS operation to be conducted.

Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under this part must conduct the operation in accordance with a letter of authorization for the use of EFVS unless the operation is conducted in an aircraft that has been issued an experimental certificate under § 21.191 of this chapter for the purpose of research and development or showing compliance with regulations, or the operation is being conducted by a person otherwise authorized to conduct EFVS operations under paragraphs (a)(2)(ix) through (xii) of this section. A person applying to the FAA for a letter of authorization must submit an application in a form and manner prescribed by the Administrator.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under part 121, 129, or 135 of this chapter must conduct the operation in accordance with operations specifications authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting an EFVS operation during an authorized Category II or Category III operation must conduct the operation in accordance with operations specifications, management specifications, or a letter of authorization authorizing EFVS operations during authorized Category II or Category III operations.
Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless the pilot determines that the enhanced flight visibility observed by use of an EFVS is not less than the visibility prescribed in the instrument approach procedure being used.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless from the authorized DA/DH to 100 feet above the touchdown zone elevation of the runway of intended landing, any approach light system or both the runway threshold and the touchdown zone are distinctly visible and identifiable to the pilot using an EFVS. (A) The pilot must identify the runway threshold using at least one of the following visual references - (1) The beginning of the runway landing surface; (2) The threshold lights; or (3) The runway end identifier lights. (B) The pilot must identify the touchdown zone using at least one of the following visual references - (1) The runway touchdown zone landing surface; (2) The touchdown zone lights; (3) The touchdown zone markings; or (4) The runway lights.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless at 100 feet above the touchdown zone elevation of the runway of intended landing and below that altitude, the enhanced flight visibility using EFVS must be sufficient for one of the following visual references to be distinctly visible and identifiable to the pilot - (A) The runway threshold; (B) The lights or markings of the threshold; (C) The runway touchdown zone landing surface; or (D) The lights or markings of the touchdown zone.
Avionics and Communications	Understand EFVS Operations	Can explain the Administrator may prescribe additional equipment, operational, and visibility and visual reference requirements to account for specific equipment characteristics, operational procedures, or approach characteristics. These requirements will be specified in an operator's operations specifications, management specifications, or letter of authorization authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can demonstrate an understanding of the applicable EFVS equipment airworthiness requirements for operations to 100 feet above the touchdown zone. See 91.176(a)(1)(i)(A) through (F) for details; however, a flare prompt, flare guidance, or height above ground level need not be present for operations to 100 feet above the touchdown zone.
Avionics and Communications	Understand EFVS Operations	Can ensure the pilot conducting the EFVS operation may not use circling minimums.
Avionics and Communications	Understand EFVS Operations	Each required pilot flightcrew member must demonstrate adequate knowledge of, and familiarity with, the aircraft, the EFVS, and the procedures to be used.

Avionics and Communications	Understand EFVS Operations	Can ensure the aircraft must be equipped with, and the pilot flying must use, an operable EFVS that meets the equipment requirements of paragraph (b)(1) of this section.
Avionics and Communications	Understand EFVS Operations	Appreciate why the aircraft must continuously be in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal maneuvers.
Avionics and Communications	Understand EFVS Operations	Can appreciate why for operations conducted under part 121 or part 135 of this chapter, the descent rate must allow touchdown to occur within the touchdown zone of the runway of intended landing
Avionics and Communications	Understand EFVS Operations	Ensure a person exercising the privileges of a pilot certificate issued under this chapter, any person serving as a required pilot flightcrew member of a U.S.-registered aircraft, or any person serving as a required pilot flightcrew member for a part 121, 125, or 135 operators, must be qualified in accordance with part 61 and, as applicable, the training, testing, and qualification provisions of subpart K of this part, part 121, 125, or 135 of this chapter that apply to the operation;
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under part 121, 129, or 135 of this chapter must conduct the operation in accordance with operations specifications authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting an EFVS operation during an authorized Category II or Category III operation must conduct the operation in accordance with operations specifications, management specifications, or a letter of authorization authorizing EFVS operations during authorized Category II or Category III operations.
Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless the pilot determines that the enhanced flight visibility observed by use of an EFVS is not less than the visibility prescribed in the instrument approach procedure being used.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless from the authorized MDA or DA/DH to 100 feet above the touchdown zone elevation of the runway of intended landing, any approach light system or both the runway threshold and the touchdown zone are distinctly visible and identifiable to the pilot using an EFVS. (A) The pilot must identify the runway threshold using at least one of the following visual references- (1) The beginning of the runway landing surface; (2) The threshold lights; or (3) The runway end identifier lights. (B) The pilot must identify the touchdown zone using at least one of the following visual references - (1) The runway touchdown zone landing surface; (2) The touchdown zone lights; (3) The touchdown zone markings; or (4) The runway lights.
Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless at 100 feet above the touchdown zone elevation of the runway of intended landing and below that altitude, the flight visibility must be sufficient for one of the following visual references to be distinctly visible and identifiable to the pilot without reliance on the EFVS - (A) The runway threshold; (B) The lights or markings of the threshold; (C) The runway touchdown zone landing surface; or (D) The lights or markings of the touchdown zone.

Avionics and Communications	Understand EFVS Operations	Can consider the compliance date. Beginning on March 13, 2018, a person conducting an EFVS operation to 100 feet above the touchdown zone elevation must comply with the requirements of paragraph (b) of this section.
Avionics and Communications	Understand EFVS Operations	Can determine the recommended EFVS Operational Credit capability for their make/model and possibly serial number for their aircraft using Appendices 1 and 2.
Avionics and Communications	Understand EFVS Operations	Can appreciate the EFVS Operational Credit Tables in Appendix 3 for risk management under Part 91 operations or compliance for air carrier operations.

Day 4 Continued Ground School Learning Objectives

Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Powerplant	Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations without APU
Powerplant	Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations with APU
Powerplant	Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations without APU
Powerplant	Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations with APU
Powerplant	Conduct Powerplant Start	Can explain procedures for starting engines under various conditions
Powerplant	Conduct Powerplant Start	Can explain possible malfunctions during powerplant start, procedures to address the malfunction, and any associated limitations
Powerplant	Conduct Powerplant Start	Can describe coordinating and communicating with ground personnel for powerplant start, if applicable

Powerplant	Conduct Pushback	Can describe the published OEM pushback procedure for operations with engines not running, starting the right engine during pushback, and both engines running prior to pushback.
Powerplant	Understand Powerplant - turbine wheels	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - turbine wheels	Can explain system or component limitations
Powerplant	Understand Powerplant - turbine wheels	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - turbine wheels	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - turbine wheels	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Powerplant	Understand Powerplant - turbine wheels	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - allowable types of oil	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - allowable types of oil	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - allowable types of oil	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Powerplant	Understand Powerplant - compressors	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - compressors	Can explain system or component limitations
Powerplant	Understand Powerplant - compressors	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - compressors	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - compressors	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Powerplant	Understand Powerplant - compressors	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - controls and indications	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - controls and indications	Can explain system or component limitations
Powerplant	Understand Powerplant - controls and indications	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - controls and indications	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - controls and indications	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Powerplant	Understand Powerplant - controls and indications - Engine Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - controls and indications - Pylon Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - deicing, anti-icing	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - deicing, anti-icing	Can explain system or component limitations
Powerplant	Understand Powerplant - deicing, anti-icing	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - deicing, anti-icing	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - deicing, anti-icing	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Powerplant	Understand Powerplant - deicing, anti-icing	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Oil System	Understand Powerplant - allowable types of oil	Can describe the operation of the airplane systems and components using correct terminology
Oil System	Understand Powerplant - allowable types of oil	Can explain system or component limitations

Oil System	Understand Powerplant - allowable types of oil	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oil System	Understand Powerplant - oil system capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology
Oil System	Understand Powerplant - oil system capacity and quantities	Can explain system or component limitations
Oil System	Understand Powerplant - oil system capacity and quantities	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oil System	Understand Powerplant - oil system capacity and quantities	Can explain immediate action items or memory items, if appropriate
Oil System	Understand Powerplant - oil system capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Oil System	Understand Powerplant - oil system capacity and quantities	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Thrust Reverse	Understand Powerplant - thrust reverse	Can describe the operation of the airplane systems and components using correct terminology
Thrust Reverse	Understand Powerplant - thrust reverse	Can explain system or component limitations
Thrust Reverse	Understand Powerplant - thrust reverse	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Thrust Reverse	Understand Powerplant - thrust reverse	Can explain immediate action items or memory items, if appropriate
Thrust Reverse	Understand Powerplant - thrust reverse	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Thrust Reverse	Understand Powerplant - thrust reverse - Dispatch with Inoperative Thrust Reverser(s) On Wet Runways procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Thrust Reverse	Understand Powerplant - thrust reverse - Thrust Reverser Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Thrust Reverse	Understand Powerplant - thrust reverse - Thrust Reverser Manual Stow Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain immediate action items or memory items, if appropriate

Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices) - Aft Equipment Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices) - Aft Floor Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and	Can explain system or component limitations

	suppression - pneumatic and environmental	
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental - Airplane Interior Fire / Smoke / Fumes procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain immediate action items or memory items, if appropriate
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain all notes cautions or warnings listed in the

		OEM manuals & OEM manuals
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain immediate action items or memory items, if appropriate
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Day 5 Ground School Learning Objectives

Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the

		airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - capacity	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - capacity	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - capacity	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - capacity	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - capacity	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - capacity	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - pressure	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - pressure	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - pressure	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - pressure	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - pressure	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the

		airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - pressure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - pumps	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - pumps	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - pumps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - pumps	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - pumps	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - reservoirs	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - reservoirs	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - reservoirs	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - reservoirs	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - reservoirs	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - reservoirs	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**

Flight Controls	Conduct Clean Configuration Stall prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Flight Controls	Conduct Landing Configuration Stall Prevention	Can explain the effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Flight Controls	Conduct Partial Flap Configuration Stall Prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Flight Controls	Conduct Recovery from Unusual Flight Attitudes	Can explain and reference the operating envelope and structural limitations for the airplane
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain system or component limitations
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain immediate action items or memory items, if appropriate

Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - elevator	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - elevator	Can explain system or component limitations
Flight Controls	Understand Flight Controls - elevator	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - elevator	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - elevator	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - elevator	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - flaps	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - flaps	Can explain system or component limitations
Flight Controls	Understand Flight Controls - flaps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Flight Controls	Understand Flight Controls - flaps	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - flaps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - flaps	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - rudder	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - rudder	Can explain system or component limitations
Flight Controls	Understand Flight Controls - rudder	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - rudder	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - rudder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - rudder	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - speed brakes	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - speed brakes	Can explain system or component limitations

Flight Controls	Understand Flight Controls - speed brakes	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - speed brakes	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - speed brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - speed brakes	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - spoilers	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - spoilers	Can explain system or component limitations
Flight Controls	Understand Flight Controls - spoilers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - spoilers	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - spoilers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - spoilers - Ground Spoiler Failure Inflight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can describe the operation of the airplane systems and

		components using correct terminology
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain system or component limitations
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - Ailerons	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - Ailerons	Can explain system or component limitations
Flight Controls	Understand Flight Controls - Ailerons	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - Ailerons	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - Ailerons	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Flight Controls	Understand Flight Controls - Ailerons	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - Other Flight Deck Systems	Can describe other flight deck systems related to AWO operations (e.g., autobrakes or autospoilers), and any associated limitations, characteristics, or constraints (e.g., touchdown pitch up or pitch down tendency of certain autospoiler or autobrake settings or non-normal conditions, time delays, or auto-deactivation features with go-around)
Flight Controls	Understand Flight Controls - trim systems	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - trim systems	Can explain system or component limitations
Flight Controls	Understand Flight Controls - trim systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - trim systems	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - trim systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - trim systems - mach trim failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**

Landing Gear and Brakes	Conduct nosewheel steering - Nosewheel Steering failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - brakes	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - brakes	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - brakes	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - brakes	Can explain immediate action items or memory items, if appropriate

Landing Gear and Brakes	Understand Landing Gear - brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - brakes	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - indicators	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - indicators	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Landing Gear and Brakes	Understand Landing Gear - indicators	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - indicators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can explain immediate action items or memory items, if appropriate

Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - tires	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - tires	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - tires	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - tires	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - tires	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - tires	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Ice Protection	Understand flight operations in icing conditions	Can explain that "severe icing" is when the rate of ice accumulation is such that ice protection systems fail to remove the accumulation of ice and accumulation occurs in areas not normally prone to

		icing, such as aft of protected surfaces and other areas identified by the manufacturer
Ice Protection	Understand ground operations in icing conditions	Can explain that regulations prohibit takeoff when snow, ice, or frost is adhering to wings, propellers, or control surfaces of an aircraft.
Ice Protection	Understand ground operations in icing conditions	Can explain that the degradation in aircraft performance and changes in flight characteristics when frozen contaminants are present are wide ranging, unpredictable, and highly dependent upon individual aircraft design
Ice Protection	Understand ground operations in icing conditions	Can explain that the PIC has the ultimate responsibility to determine if the aircraft is clean and that the aircraft is in a condition for safe flight.
Ice Protection	Understand ground operations in icing conditions	Can explain that in order to achieve compliance with the clean aircraft concept, it is imperative that takeoff not be attempted in any aircraft unless the pilot-in-command (PIC) is certain that critical components of the aircraft are free of frozen contaminants.
Ice Protection	Understand ground operations in icing conditions	Can explain that for aircraft type specific procedures, pilots should refer to the aircraft flight manuals or other manufacturer documents developed for that particular type aircraft

Ice Protection	Understand ground operations in icing conditions	Can explain that icing conditions (during flight or ground operations) can occur, and ice protection systems or procedures should be activated when OAT is below 50 degrees F (10 degrees C) and visible moisture in any form is present or when there is standing water, ice, or snow on the runway and/or taxiways.
Ice Protection	Understand ground operations in icing conditions	Can explain that residual ice or slush accumulated on airframe components during landing and taxi operations on contaminated runways, taxiways and ramps, can remain in place if low temperatures and other weather conditions exist unless identified and removed. Contaminants of this type are commonly found in wheel wells, on landing gear components, trailing edge flaps, undersurfaces of wings and horizontal stabilizers
Ice Protection	Understand ground operations in icing conditions	Can explain that the deicing process is intended to restore the aircraft to a clean configuration so that neither degradation of aerodynamic characteristics nor mechanical interference from contaminants will occur
Ice Protection	Understand ground operations in icing conditions	Can explain that it is essential that the PIC have a thorough understanding of the deicing and anti-icing process and the approved procedures necessary to ensure that the aircraft is clean for takeoff.
Ice Protection	Understand ground operations in icing conditions	Can explain that anti-icing should be performed as near to the takeoff time as possible to minimize the risk of exceeding

		the useful life or time of effectiveness of the anti-icing fluid
Ice Protection	Understand Ice Protection - anti-ice & de-ice - Ice Shedding Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can describe the operation of the airplane systems and components using correct terminology
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can explain system or component limitations
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can explain immediate action items or memory items, if appropriate
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can explain the function and limitations of automatic mode of wing and cowl anti-ice systems
Ice Protection	Understand Ice Protection - pitot-static system protection	Can describe the operation of the airplane systems and components using correct terminology
Ice Protection	Understand Ice Protection - pitot-static system protection	Can explain system or component limitations
Ice Protection	Understand Ice Protection - pitot-static system protection	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection - pitot-static system protection	Can explain immediate action items or memory items, if appropriate

Ice Protection	Understand Ice Protection - pitot-static system protection	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Ice Protection	Understand Ice Protection airfoil surfaces	Can describe the operation of the airplane systems and components using correct terminology
Ice Protection	Understand Ice Protection airfoil surfaces	Can explain system or component limitations
Ice Protection	Understand Ice Protection airfoil surfaces	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection airfoil surfaces	Can explain immediate action items or memory items, if appropriate
Ice Protection	Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Ice Protection	Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Ice Protection	Understand Ice Protection windshield	Can describe the operation of the airplane systems and components using correct terminology
Ice Protection	Understand Ice Protection windshield	Can explain system or component limitations
Ice Protection	Understand Ice Protection windshield	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection windshield	Can explain immediate action items or memory items, if appropriate

Ice Protection	Understand Ice Protection windshield	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Ice Protection	Understand Ice Protection windshield - Windshield Cracked procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Ice Protection	Understand Ice Protection windshield - Windshield Heat Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Day 6 Ground School Learning Objectives

Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Flight Planning and Performance	Understand determining landing performance per AFM	Can explain the importance of accurate and timely assessments of landing distance
Flight Planning and Performance	Understand determining landing performance per AFM	Can explain the origin and use of runway Declared Distances
Flight Planning and Performance	Understand determining landing performance per AFM	Can identify and manage risks associated with runway overruns during the landing
Flight Planning and Performance	Understand determining landing performance per AFM	Can explain the risks associated with tailwind landings and landings on contaminated runways
Flight Planning and Performance	Understand determining landing performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining landing performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight

Flight Planning and Performance	Understand determining landing performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Conduct Rejected Takeoff	Can define relevant V-speeds for a rejected takeoff
Flight Planning and Performance	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that there are two types of DPs: Standard Instrument Departures (SIDs) and Obstacle Departure Procedures (ODPs)
Flight Planning and Performance	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that SIDs are primarily designed for air traffic system enhancement to expedite traffic flow and to reduce pilot/controller workload.
Flight Planning and Performance	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that ODPs are recommended for obstruction clearance and may be flown without ATC clearance unless an alternate DP (SID or radar vector) has been specifically assigned by ATC.
Flight Planning and Performance	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that operation on U.S. RNAV routes, DPs and STARs relies on normal descent profiles and identifies minimum segment altitude requirements
Flight Planning and Performance	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe alternate airport requirements and selection of an alternate airport.
Flight Planning and Performance	Understand Avionics and Communications - Instruments	Can describe proper application of controlling and/or advisory RVR, appropriate runway light settings, and proper determination of RVR values reported at foreign facilities.

Flight Planning and Performance	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe the meaning and proper use of aircraft equipment/navigation capability codes used on the flight plan
Flight Planning and Performance	Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Distance
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Run

Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Accelerate-Stop Distance
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can state the different causes of RTOs
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the difference between Takeoff Distance and Takeoff Run
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the Balanced Field Concept
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain why V_1 can be no less than V_{MCG} nor can be no more than V_R
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.
Flight Planning and Performance	Understand determining climb performance per AFM	Can explain why OEI data may not ensure climb gradient compliance nor obstacle clearance

Flight Planning and Performance	Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for “all engine” or “engine inoperative” missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around procedures, acceleration segments or transition following an engine failure between the specified “all-engine lateral flightpath” (or radar vectors) and any specified “engine-inoperative lateral flightpath,” using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.
Flight Planning and Performance	Understand determining climb performance per AFM	Can explain considerations for OEI departure development
Flight Planning and Performance	Understand determining climb performance per AFM	Can state the definition of takeoff segment
Flight Planning and Performance	Understand determining climb performance per AFM	Can state the definitions of gross and net flighpath
Flight Planning and Performance	Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators

Flight Planning and Performance	Understand determining climb performance per AFM	Can locate FAA TALPA videos online
Flight Planning and Performance	Understand determining climb performance per AFM	Can describe the segments of an instrument departure procedure
Flight Planning and Performance	Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures
Flight Planning and Performance	Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining descent performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining descent performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining descent performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining fuel requirements per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining fuel requirements per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane

		performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining fuel requirements per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand ground operations in icing conditions	Can explain the general adverse effects of ice, snow and frost on aircraft performance and flight characteristics: decreased thrust, decreased lift, increased stall speed, trim changes, and altered stall characteristics and handling qualities
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define declared runway distance
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define landing distance available
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define actual landing distance

Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can interpret and make proper runway condition reports
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "adjusted landing distance"
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "unfactored (certified) landing distance"
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "factored landing distance"
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the effect of downhill runway slope on required landing distance
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the impact of excess airspeed on landing distance
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the purpose and variables involved in a landing performance assessment at time of arrival
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the effect of wind on landing performance
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can identify critical condition combinations that increase risk of a runway overrun
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the difference between AFM dry, certified/approved data and advisory/supplemental data
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can reference applicable regulations for preflight planning
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can calculate the required effective landing distance for dispatch under part 91 and part 135 operations
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the Can U StoP process

Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that factors affecting landing distance are cumulative, and why multiple small errors during landing can contribute to a runway overrun
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how high airport elevation can contribute to a runway overrun
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excess airspeed can contribute to a runway overrun
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how airplane landing weight can contribute to an aircraft overrun
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how downhill runway slope can contribute to a runway overrun
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing with a tailwind can contribute to a runway overrun
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain predeparture planning versus runway condition at time of arrival
Flight Planning and Performance	Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the difference between the generic samples in table 3-2 where cumulative errors are made, and table 3-3 where errors are not made
Flight Planning and Performance	Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).	Can explain and demonstrate the use of charts, tables, and data to determine performance

Day 7 Ground School Learning Objectives

Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**

Flight Profiles and Maneuvers	Understand determining landing performance per AFM	Can explain the parameters and importance of a stabilized approach
Flight Profiles and Maneuvers	Understand determining landing performance per AFM	Can explain the airspeeds used during specific phases of flight
Flight Profiles and Maneuvers	Conduct Missed Approach	Can explain that when executing a missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure
Flight Profiles and Maneuvers	Conduct Missed Approach - OEI	Can explain that when executing a one engine inoperative missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure.
Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain that unstabilized approaches are a key contributor to CFIT events, and explain that present NPAs are designed with and without stepdown fixes in the final approach

Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain why stepdowns flown without a constant descent will require multiple thrust, pitch, and altitude adjustments inside the final approach fix (FAF), and can explain that these adjustments increase pilot workload and potential errors during a critical phase of flight.
Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain that the practice commonly referred to as "dive and drive," can result in extended level flight as low as 250 feet above the ground in instrument meteorological conditions (IMC) and shallow or steep final approaches.
Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain that a stabilized approach is a key feature to a safe approach and landing. Can explain that operators are encouraged by the FAA and the International Civil Aviation Organization (ICAO) to use the stabilized approach concept to help eliminate CFIT.
Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain that the stabilized approach concept is characterized by maintaining a stable approach speed, descent rate, vertical flightpath, and configuration to the landing touchdown point
Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain that precision IAPs and approach procedures with vertical guidance (APV) have a continuous descent approach profile in their design.
Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain that NPAs were not originally designed with this vertical path, but may easily be flown using the CDFA (continuous descent final approach) technique.

Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain why Flying NPAs with a continuous descent profile will provide a safety advantage over flying approaches using the "dive and drive" technique.
Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain that CDFA is a technique for flying the final approach segment of an NPA as a continuous descent. The technique is consistent with stabilized approach procedures and has no level-off.
Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain the six advantages of CDFA: Increased safety by employing the concepts of stabilized approach criteria and procedure standardization; Improved pilot situational awareness (SA) and reduced pilot workload; Improved fuel efficiency by minimizing the low-altitude level flight time; Reduced noise level by minimizing the level flight time at high thrust settings; Procedural similarities to APV and precision approach operations; Reduced probability of infringement on required obstacle clearance during the final approach segment.
Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain that CDFA requires no specific aircraft equipment other than that specified by the title of the NPA procedure and that Pilots can safely fly suitable NPAs with CDFA using basic piloting techniques, aircraft flight management systems (FMS) and RNAV systems, or by manually computing rate of descent.
Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can calculate a rate of descent for VDA (see example in this paragraph)

Flight Profiles and Maneuvers	Conduct Nonprecision Approach	Can explain that some approach characteristics (e.g., circling-only minima) and environmental factors (e.g., icing) could make the use of CDFA inadvisable.
Flight Profiles and Maneuvers	Conduct Rejected Takeoff	Can describe conditions and situations that could warrant a rejected takeoff (e.g., takeoff warning systems, powerplant failure, other systems warning/failure)
Flight Profiles and Maneuvers	Conduct Taxi	Can describe appropriate flight deck activities prior to taxi, including route planning, identifying the location of Hot Spots, and coordinating with crew
Flight Profiles and Maneuvers	Conduct Taxi	Can explain the definition of a runway incursion: Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
Flight Profiles and Maneuvers	Conduct Taxi	Can explain why thorough planning for taxi operations is essential for a safe operation
Flight Profiles and Maneuvers	Conduct Taxi	Can conduct briefing of the expected taxi route to include any hold short lines and runways to cross, hot spots, and any other potential conflicts. (Once taxi instructions are received, the pretaxi route should be reviewed and monitored. It is essential that any changes to the taxi route be understood by all crewmembers)
Flight Profiles and Maneuvers	Conduct Taxi	Can identify critical locations on the taxi route, where verbal coordination between the PIC and the SIC is important to avoid a runway incursion. (e.g., hot spots/complex intersections, crossing intervening runways,

		entering and lining up on the runway for takeoff, and approaching and lining up on the runway for landing)
Flight Profiles and Maneuvers	Conduct Taxi	Can conduct briefing of requirements and special considerations during low visibility operations such as: the low visibility taxi chart, if published for the airport
Flight Profiles and Maneuvers	Conduct Taxi	Can maintain knowledge of the aircraft's precise position throughout the taxi operation and mentally calculate the next location on the route that will require increased attention (e.g., a turn onto another taxiway, an intersecting runway, or hot spots)
Flight Profiles and Maneuvers	Conduct Taxi	Can interpret and use all visual aids, and signage and lighting on the airport surface
Flight Profiles and Maneuvers	Conduct Taxi	Can write down complex taxi instructions or copy taxi instructions into the scratch pad of the CDU
Flight Profiles and Maneuvers	Conduct Taxi	Can explain that before entering a runway for takeoff, the flightcrew should verbally coordinate to ensure correct flap setting, identification of the runway, compass heading, FMC entry, and receipt of the proper ATC clearance to use that runway
Flight Profiles and Maneuvers	Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain the airspeeds used during specific phases of flight
Flight Profiles and Maneuvers	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the airspeeds used during specific phases of flight

Flight Profiles and Maneuvers	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely decisions in relation V_1
Flight Profiles and Maneuvers	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely and correct decisions related to rejected takeoffs (RTO)
Flight Profiles and Maneuvers	Understand determining climb performance per AFM	Can explain the airspeeds used during specific phases of flight
Flight Profiles and Maneuvers	Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures
Flight Profiles and Maneuvers	Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain the airspeeds used during specific phases of flight
Flight Profiles and Maneuvers	Understand determining descent performance per AFM	Can explain the airspeeds used during specific phases of flight
Flight Profiles and Maneuvers	Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain the airspeeds used during specific phases of flight
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the point at which landing configuration should be established in a stabilized approach
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe a stabilized approach profile for both VMC and IMC conditions
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of a stabilized descent rate
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of indicated airspeed during a stabilized approach
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that ATP criteria for touchdown point is the aiming point markings - 250/+500 feet, or where there are no runway aiming point markings 750 to 1,500 feet from the approach threshold of the runway.
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain proper landing and braking technique

Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can discuss the chain of events that lead to an overrun in this example, and relate it to their own experiences
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how an unstabilized approach can contribute to a runway overrun
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing beyond the intended touchdown point can contribute to a runway overrun
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excessive height over the runway threshold can contribute to a runway overrun
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how delayed use of deceleration/maximum breaking can contribute to a runway overrun
Flight Profiles and Maneuvers	Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain how use of published approach guidance in visual conditions can reduce errors
Flight Profiles and Maneuvers	Understand Specific Flight Characteristics	Can identify expected minimum visual references that occur on approach when the weather is at acceptable minimum conditions as well as the expected sequence of visual cues during an approach in which the visibility is at or above the specified landing minima. Training on this topic should include identifying required visual references over a range of actual or simulated low-visibility
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Recognition of impending stall indications and understanding of the need to initiate the stall

		recovery procedure at an impending stall.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Recognition of full stall indication (see paragraph 1-7) with the realization that most swept-wing transport category aircraft exhibit full stall characteristics different from those typically experienced in General Aviation (GA) aircraft used during certification training.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: For airplanes equipped with a stick pusher, recommended recovery actions in response to stick pusher activation.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Avoiding cyclical or oscillatory control inputs to prevent exceeding the structural limits of the airplane.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Structural considerations, including explanation of limit load, ultimate load, and the dangers of combining accelerative and rolling moments (i.e., the rolling pull) during recovery.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: The necessity for smooth, deliberate, and positive control inputs to avoid unacceptable load factors and secondary stalls.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: AOA must be reduced prior to controlling roll.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Effectiveness of control surfaces and the order in which the control surfaces lose and regain their

		effectiveness (e.g., spoilers, ailerons, etc.).
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: If a terrain awareness warning system (TAWS) warning is encountered during recovery from a low altitude stall event, recovery from the stall warning should take precedence. Once the airplane recovers from the stall event, then execute the TAWS escape maneuver.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: AOA versus pitch angle.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Rate of onset including rate of airspeed decay (both low and high).
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Airplane configuration and condition including weight, center of gravity (CG), landing gear, flaps/slats, spoilers/speed brakes, etc.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Asymmetric loading including thrust asymmetries, wing loading due to roll or yaw transients or uncoordinated flight.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: G loading.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Bank angle.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Thrust and lift vectors.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Thrust required versus thrust available.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Wind shear.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Altitude.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Mach effects.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Situational Awareness.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Mode confusion, including unexpected/unannounced mode changes.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: unexpected transition from automated to manual flight.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Contamination (ice), including the effect of icing on stall speed and stall warnings.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can demonstrate an understanding of AOA indicators (if installed) or interpretation of other representations of AOA such as pitch-limit indicators or speed display symbology that can assist in stall prevention.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain specific stall and low-speed buffet characteristics unique to the airplane type and any implications for the expected flight operations and airplane-specific stall recovery procedure (e.g., underwing mounted engines, t-tail, propellers, etc.).
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can describe thrust settings and its application.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can describe autothrottle/autothrust protection.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can demonstrate awareness of autoflight mode indications.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain incorrect use of (including input errors) flightpath automated systems.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the operation and function of stall protection systems in normal, abnormal, and emergency situations, including the hazards of overriding or ignoring stall protection system indications. Awareness of the factors that may lead such systems to fail, as well as degraded modes, indications, or behaviors that may occur with system failures.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain buffet boundary and margins in flight planning and operational flying.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the lower margins for stall onset and recovery (i.e., coffin corner) and possible buffet cueing differences on the high-speed versus the low-speed margin.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the principles of high-altitude aerodynamics, performance capabilities, and limitations; including high altitude operations and flight techniques (i.e., the need to avoid secondary stall by extended nose-down recovery, compared to lower altitudes).
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the differences in airplane performance (e.g., thrust available) during high versus low altitude operations, the effects of those differences on stall recovery, and the anticipated altitude loss during a recovery.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the differences between transport category airplane certification and GA airplane certification regarding use of flight controls at high AOA. For example, if the roll control system is compromised and the ailerons are unable to produce the required roll recovery, the rudder may be used with care during stall prevention and recovery. To maintain structural integrity, it is important to guard against control reversals—avoid rapid full-scale reversal of control deflection
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can demonstrate general awareness of example events. Although significant emphasis should be placed on preventing stall events, it is important for pilots to understand that, although rare, stall events continue to occur. Studying the causes and contributing factors of stall events give pilots more knowledge to help prevent or if necessary, recover from a stall event. A review of stall-related accidents, incidents, ASAP, FOQA, and ASRS data for the specific airplane type or class should be included in ground training.

Flight Profiles and Maneuvers	Conduct Stall Prevention and Recovery	Can explain the STICK PUSHER. For airplanes equipped with a stick pusher, stall recovery training includes ground training and practical training in an FFS. It is important for pilots to experience the sudden forward movement of the control yoke/stick during a stick pusher activation. From observations, most instructors state that, regardless of previous academic training, pilots usually resist the stick pusher on their first encounter. Usually, they immediately pull back on the control yoke/stick rather than releasing pressure as they have been taught. Therefore, pilots must receive practical stick pusher training in an FFS to develop the proper response (allowing the pusher to reduce AOA) when confronted with a stick pusher activation. Stick pusher training should be completed as a demonstration/practice exercise, including repetitions, until the pilot's reaction is to permit the reduction in AOA even at low altitudes. Pilot response to a deliberate activation of the pusher is not a checked maneuver.
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
CRM	Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the characteristics of effective CRM
CRM	Understand Crew Resource Management (CRM)	Can evaluate the authority of the pilot in command
CRM	Understand Crew Resource Management (CRM)	Can discuss communication processes, decisions, and coordination, to include

		communication with Air Traffic Control, personnel performing flight locating and other operational functions, and passengers
CRM	Understand Crew Resource Management (CRM)	Can manage building and maintenance of a flight team
CRM	Understand Crew Resource Management (CRM)	Can discuss workload and time management
CRM	Understand Crew Resource Management (CRM)	Ensure situational awareness
CRM	Understand Crew Resource Management (CRM)	Can appreciate the effects of fatigue on performance, avoidance strategies and countermeasures
CRM	Understand Crew Resource Management (CRM)	Can appreciate the effects of stress and stress reduction strategies
CRM	Understand Crew Resource Management (CRM)	Can determine aeronautical decision-making and judgment training tailored to the operator's flight operations and aviation environment
CRM	Understand Crew Resource Management (CRM)	Can explain the airplane pilot competency framework and associated observable behaviors
CRM	Understand Crew Resource Management (CRM)	Can relate the airplane pilot competency framework to threat and error management
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Weight and Balance	Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable
Weight and Balance	Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Weight and Balance	Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight

Day 8 Ground School Learning Objectives

Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear recognition
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear pilot technique
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff after liftoff
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff while on the runway
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff while on the runway
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can define windshear as any rapid change in wind direction or velocity
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can define severe windshear as a rapid change in wind direction or velocity causing airspeed changes greater than 15 knots or vertical speed changes greater than 500 feet per minute
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can define Increasing Headwind Shear as windshear in which headwind increases, causing an airspeed increase
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can define Decreasing Headwind Shear as windshear in which headwind decreases, causing an airspeed loss
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can define Increasing Tailwind Shear as windshear in which tailwind increases, causing an airspeed loss

Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can define Decreasing Tailwind Shear as windshear in which tailwind decreases, causing an airspeed increase
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter on the approach
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss takeoff precautions
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss approach precautions
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss the characteristics of a microburst
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss general windshear recovery technique
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear recovery technique after liftoff/on approach
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear recovery technique during takeoff/on runway
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss why other techniques of recovery reduce the chances of survival
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
MEL and CDL	Understand Auxiliary Power Unit (APU)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation

		List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - autopilot	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - emergency locator transmitter.	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Avionics and communications - Flight Management System (FMS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - ground-based navigation systems and components	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - indicating devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Radar	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document

		inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - terrain awareness/warning/alert systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - transponder	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Crew and Passenger Emergency Equipment - emergency exits	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Crew and Passenger Equipment - oxygen system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Crew and Passenger Equipment - passenger oxygen system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - circuit breakers and protection devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - controls	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - external and auxiliary power sources. (Ground power and APU)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - generators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document

		inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Envelope protection—angle of attack warning and protection and speed protection	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Fire & smoke detection, protection, and suppression - lavatory	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - powerplant	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - elevator	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - flaps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - rudder	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - speed brakes	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document

		inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - spoilers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - Ailerons	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - trim systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - additives	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Fuel system - capacity and quantities	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - controls and indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - cross-feeding	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - drains	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - fuel grade	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - fuel substitutions	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document

		inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - fueling and defueling procedures	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - pumps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - transferring	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - allowable types of fluid	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - capacity	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Hydraulic system - pressure	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - pumps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - regulators/accumulators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - reservoirs	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection - anti-ice & de-ice.	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection - pitot-static system protection	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document

		inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection airfoil surfaces	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection windshield	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - antiskid	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - brakes	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - extension/retraction system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Landing Gear - indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - nosewheel steering	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - shock absorbers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - tires	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Lighting	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document

		inoperative components of this system and explain related procedures
MEL and CDL	Understand Pitot Static System - Operation and power sources for other flight instruments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pneumatic and environmental system - pressurization	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pneumatic and environmental system - supply for ice protection systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Powerplant - turbine wheels	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - allowable types of oil	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - compressors	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - controls and indications	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - deicing, anti-icing	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - oil system capacity and quantities	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document

		inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - thrust reverse	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can describe the operation of the airplane systems and components using correct terminology
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain system or component limitations
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain immediate action items or memory items, if appropriate
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can describe the operation of the airplane systems and components using correct terminology
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain system or component limitations
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain immediate action items or memory items, if appropriate
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Pneumatic and Environmental Systems	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can describe the operation of the airplane systems and components using correct terminology
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain system or component limitations
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can describe the operation of the airplane systems and components using correct terminology
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain system or component limitations
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use

		of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can describe the operation of the airplane systems and components using correct terminology
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can explain system or component limitations
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization - Unpressurized Flight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can describe the operation of the airplane systems and components using correct terminology
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can explain system or component limitations

Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can describe the operation of the airplane systems and components using correct terminology
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can explain system or component limitations
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can explain immediate action items or memory items, if appropriate
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe

		the proper use of the airplane system, subsystem, or device
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can describe the operation of the airplane systems and components using correct terminology
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can explain system or component limitations
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can explain immediate action items or memory items, if appropriate
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system - Inadvertent Oxygen Mask Activation	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system - Overweight Landing procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can describe the operation of the airplane systems and components using correct terminology
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain system or component limitations

Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain immediate action items or memory items, if appropriate
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oxygen	Understand determining performance with an inoperative powerplant for all phases of flight per AFM - Engine Failure Considerations procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Lighting	Conduct Taxi	Can describe appropriate aircraft lighting for day and night operations
Lighting	Understand Lighting	Can describe the operation of the airplane systems and components using correct terminology
Lighting	Understand Lighting	Can explain system or component limitations
Lighting	Understand Lighting	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Lighting	Understand Lighting	Can explain immediate action items or memory items, if appropriate

Lighting	Understand Lighting	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Lighting	Understand Lighting	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 1	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Preflight	Conduct Interior and exterior preflight	Can explain which items must be inspected per the OEM Manuals using pictorial preflight
Preflight	Conduct Interior and exterior preflight	Can explain the reasons for checking each item during preflight
Preflight	Conduct Interior and exterior preflight	Can describe how to detect possible defects
Preflight	Conduct Interior and exterior preflight	Can explain how to coordinate checklist with crew, if appropriate

Systems Integration Training Learning Objectives

SIT 1 Learning Objectives

Tasks	**Knowledge & Cognitive Learning Objectives**	**Motor Skill Learning Objectives**	**Attitude Learning Objectives**	**Task Expectation Rating**
Conduct Before Takeoff Checks			Can manage the risk of errors when assigned an RNAV DP and subsequently receives a change of runway, procedure or transition by verifying the appropriate changes are entered and available for navigation prior to takeoff.	Low
Conduct Before Takeoff Checks	Can explain the purpose of checking each item during before takeoff checks			Low
Conduct Before Takeoff Checks	Can describe how to detect malfunctions			Low
Conduct Before Takeoff Checks	Can ensure the aircraft is in safe operating condition			Low
Conduct Before Takeoff Checks	Can explain deicing and anti-icing procedures			Low
Conduct Before Takeoff Checks	Can describe how to conduct			Low

	a proper pre-takeoff contamination check			
Conduct Before Takeoff Checks	Can describe how adverse weather conditions effect takeoff performance (e.g., snow, ice, gusting crosswinds, low-visibility)			Low
Conduct Before Takeoff Checks	Can give a before takeoff briefing			Low
Conduct Before Takeoff Checks		Can determine the airplane's takeoff performance for actual conditions and planned departure runway		Low
Conduct Before Takeoff Checks		Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		Low
Conduct Before Takeoff Checks		Can confirm all systems checked are within an acceptable operating range and are safe for the proposed flight		Low

Conduct Before Takeoff Checks		Can explain any system operating characteristic or limitation and any corrective action for a malfunction during the checks		Low
Conduct Before Takeoff Checks		Can determine airspeeds/V-speeds and set flight instruments appropriately		Low
Conduct Before Takeoff Checks		Can use flight director and autopilot controls for the current flight conditions and takeoff and departure clearances		Low
Conduct Before Takeoff Checks		Can perform configuration of navigation equipment for takeoff and departure clearances		Low
Conduct Before Takeoff Checks		Can configure communication equipment for takeoff and departure clearances		Low
Conduct Before Takeoff Checks		Can obtain and correctly interpret the takeoff and departure clearance		Low

Conduct Before Takeoff Checks		Can conduct a briefing that includes procedures for emergency and abnormal situations (e.g., powerplant failure, windshear), which may be encountered during takeoff, and state the planned action if they were to occur		Low
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing division of attention while conducting before takeoff checks	Low
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing an unexpected change in the runway to be used for departure	Low
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to verify performance data is correct and airspeeds and flight instruments are	Low

			set for actual conditions and the departure runway	
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to set navigation and communication equipment for departure	Low
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to configure autopilot and flight director controls for departure	Low
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to account for adverse weather conditions prior to takeoff (e.g., snow, ice, gusting crosswinds, low-visibility)	Low
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing A powerplant failure during takeoff or other malfunction considering	Low

			operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions	
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	Low
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status			Low
Conduct Interior and exterior preflight			Can identify, assess, and manage risks encompassing Inoperative equipment discovered prior to flight.	Low
Conduct Interior and exterior preflight			Can identify, assess, and manage risks encompassing external pressures and Aviation security concerns.	Low
Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations without APU			Low

Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations with APU			Low
Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations without APU			Low
Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations with APU			Low
Conduct Powerplant Start	Can explain procedures for starting engines under various conditions			Low
Conduct Powerplant Start	Can explain possible malfunctions during powerplant start, procedures to address the malfunction, and any associated limitations			Low
Conduct Powerplant Start	Can describe coordinating and communicating with ground personnel for powerplant start, if applicable			Low

Conduct Powerplant Start		Can ensure the ground safety procedures are followed during the before-start, start, and after-start phase		Low
Conduct Powerplant Start		Can coordinate with crew and complete the appropriate checklist(s) prior to and after powerplant start.		Low
Conduct Powerplant Start			Can identify, assess, and manage risks encompassing malfunctions during powerplant start	Low
Conduct Powerplant Start			Can identify, assess, and manage risks encompassing turbine powerplant safety	Low
Conduct Powerplant Start			Can identify, assess, and manage risks encompassing managing situations where specific instructions or checklist items are not published	Low
Conduct Powerplant Start			Can identify, assess, and manage risks encompassing	Low

			personnel, vehicles, vessels, foreign object debris, and other aircraft in the vicinity during powerplant start	
Conduct use of FMS			Can manage the risk of errors when receiving a change to assigned routing by ensuring the waypoints sequence depicted by their navigation system matches the route depicted on the appropriate chart(s) and their assigned route	Low
Conduct use of FMS		Can verify currency of aircraft navigation data.		Low
Conduct use of FMS		Can verify successful completion of RNAV system self-tests		Low
Conduct use of FMS		Can execute initialization of RNAV system position		Low
Conduct use of FMS		Can execute retrieval and flying of a DP or STAR with appropriate transition		Low

Conduct use of FMS		Can verify waypoints and flight plan programming		Low
Conduct use of FMS		Can use the cursor control device effectively		Low
Conduct use of TCAS		Can demonstrate the proper use of controls including aircraft configuration required to initiate a self-test.		Low
Conduct use of TCAS		Can demonstrate the proper use of controls including steps required to initiate a self-test.		Low
Conduct use of TCAS		Can demonstrate the proper use of controls including recognizing when the self-test was successful and when it was unsuccessful. When the self-test is unsuccessful, recognizing the reason for the failure, and if possible,		Low

		correcting the problem.		
Understand Avionics and communications - autopilot	Can describe the operation of the airplane systems and components using correct terminology			Low
Understand Avionics and communications - autopilot	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations			Low

Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document			Low

	inoperative components of this system and explain related procedures			
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the			Low

	proper use of the airplane system, subsystem or device			
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures			Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)			Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)			Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	Low
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)			Can identify, assess, and manage risks encompassing improper management of a system failure	Low
Understand Avionics and communications - communication systems			Can identify, assess, and manage risks	Low

(e.g., data link, UHF/VHF/HF, satellite)			encompassing failure to monitor and manage automated systems.	
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Low
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the operation of the airplane systems and components using correct terminology			Low
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain system or component limitations			Low
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			Low
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain immediate action items or memory items, if appropriate			Low
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration			Low

	Deviation List (CDL) to document inoperative components of this system and explain related procedures			
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	Low
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	Low
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing improper management of a system failure	Low
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	Low
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain the features of the PlaneView System			Low

Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the functional characteristics of the cursor control device			Low
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Crew Alerting System (CAS) Caution Messages and Procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Low
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Synthetic Vision-Primary Flight Display Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Low
Understand Avionics and communications - Flight Management System (FMS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Avionics and communications - ground-based	Can describe the operation of the airplane systems and			Medium

navigation systems and components	components using correct terminology			
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Avionics and Communications - Instruments	Can interpret situation information displays, as applicable.			Low
Understand Avionics and communications - Radar	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - Radar	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system,			Low

	subsystem or device			
Understand Avionics and communications - terrain awareness/warning/alert systems	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - terrain awareness/warning/alert systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Avionics and communications - transponder	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - transponder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Electrical System - circuit	Can use the appropriate checklists and			Medium

breakers and protection devices	NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			
Understand Electrical System - controls	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Electrical System - generators	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Electrical System - generators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Electrical System - indicators	Can use the appropriate checklists and NORMAL procedures to			Low

	demonstrate or describe the proper use of the airplane system, subsystem or device			
Understand Electrical System -batteries	Can describe the operation of the airplane systems and components using correct terminology			Low
Understand Electrical System -batteries	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Flight Controls - flaps	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Flight Controls - flaps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low

Understand Flight Controls - speed brakes	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Flight Controls - speed brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Flight Controls - spoilers	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Flight Controls - spoilers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Flight Controls - trim systems	Can describe the operation of the airplane systems and components using correct terminology			Medium

Understand Flight Controls - trim systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Fuel system - capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Fuel system - capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Hydraulic system - pressure	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Hydraulic system - pressure	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the			Low

	proper use of the airplane system, subsystem or device			
Understand Hydraulic system - pumps	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Hydraulic system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Hydraulic system - regulators/accumulators	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low

Understand Ice Protection - anti-ice & de-ice.	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Ice Protection - anti-ice & de-ice.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Ice Protection airfoil surfaces	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Landing Gear - brakes	Can describe the operation of the airplane systems and components using correct terminology			Medium

Understand Landing Gear - brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Landing Gear - indicators	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Landing Gear - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand OEM checklist philosophy			Can appreciate that while there are no defined memory items in the AFM, pilots should still be familiar enough with the aircraft to be able to perform initial and critical items without first referencing	Low

			associated documentation. In addition, pilots are expected to don oxygen masks promptly when appropriate (e.g., when smoke is detected).	
Understand OEM checklist philosophy			Can appreciate that abnormal and emergency procedures are presented in quick reference handbooks (QRH) of an identical format for all three aircraft. Although some individual steps may differ or use different acronyms, these steps are carried out under the guidance of the handbook in a logical decision-making manner	Low
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system,			Low

	subsystem or device			
Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Low
Understand Pneumatic and environmental system - pressurization	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Pneumatic and environmental system - pressurization	Can use the appropriate checklists and			Low

	NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			

SIT 2 Learning Objectives

Tasks	**Knowledge & Cognitive Learning Objectives**	**Motor Skill Learning Objectives**	**Attitude Learning Objectives**	**Task Expectation Rating**
Conduct after landing, parking and securing	Can explain parking, shutdown, securing, and postflight inspection.			Low
Conduct after landing, parking and securing		Can demonstrate runway incursion avoidance procedures.		Low
Conduct after landing, parking and securing		Can comply with ATC instructions and perform radio calls as appropriate.		Low
Conduct after landing, parking and securing		Can coordinate with crew, if applicable, and execute the appropriate checklist(s) after clearing the runway.		Low
Conduct after landing, parking and securing		Can perform parking in the appropriate area, considering the safety of nearby persons and property.		Low

Conduct after landing, parking and securing		Can execute a postflight inspection and document discrepancies and servicing requirements, if any.		Low
Conduct after landing, parking and securing		Can perform securing the airplane.		Low
Conduct after landing, parking and securing			Can identify, assess, and manage risks, encompassing inappropriate activities and distractions.	Low
Conduct after landing, parking and securing			Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions.	Low
Conduct after landing, parking and securing			Can identify, assess, and manage risks, encompassing propeller, turbofan inlet, and exhaust safety.	Low
Conduct after landing, parking and securing			Can identify, assess, and manage risks, encompassing airport specific security procedures.	Low
Conduct after landing, parking and securing			Can identify, assess, and manage risks, encompassing disembarking passengers.	Low

Conduct Arrival Procedures			Can manage the risk of errors when assigned a STAR and subsequently receives a change of landing runway, procedure or transition by verifying the appropriate changes are entered and available for navigation	Low
Conduct Arrival Procedures	Can use standard Terminal Arrival (STAR) charts, U.S. Terminal Procedures Publications, and IFR Enroute High and Low Altitude Charts			Low
Conduct Arrival Procedures	Can use a Flight Management System (FMS) or GPS to follow a STAR			Low
Conduct Arrival Procedures	Can explain two-way radio communication failure procedures during an arrival			Low
Conduct Arrival Procedures	Can explain ground-based and satellite-based			Low

	navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)			
Conduct Arrival Procedures		Can select, identify and use the appropriate communication and navigation facilities associated with the arrival		Low
Conduct Arrival Procedures		Can perform setup of FMS and avionics to include flight director and autopilot controls for the arrival, if applicable		Low
Conduct Arrival Procedures		Can use current and appropriate navigation publications or databases for the proposed flight		Low
Conduct Arrival Procedures		Can initiate two-way communications with the proper controlling agency		Low
Conduct Arrival Procedures		Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		Low

Conduct Arrival Procedures		Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		Low
Conduct Arrival Procedures		Can comply with all applicable charted procedures		Low
Conduct Arrival Procedures		Can comply with airspeed restrictions required by regulation, procedure, aircraft limitation or ATC		Low
Conduct Arrival Procedures		Can maintain rate of descent consistent with the route segment, airplane operating characteristics and safety		Low
Conduct Arrival Procedures		Can maintain the appropriate airspeed/V-speed ±10 knots, but not less than VRef if applicable, heading ±10°, altitude ±100 feet, and accurately track radials, courses, and bearings		Low
Conduct Arrival Procedures			Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures.	Low
Conduct Arrival Procedures			Can identify, assess, and manage risks,	Low

			encompassing failure to recognize limitations of traffic avoidance equipment.	
Conduct Arrival Procedures			Can identify, assess, and manage risks, encompassing failure to use see and avoid techniques when possible.	Low
Conduct Arrival Procedures			Can identify, assess, and manage risks, encompassing improper automation management.	Low
Conduct Arrival Procedures			Can identify, assess, and manage risks, encompassing ATC instructions that modify an arrival or discontinue/resume the aircraft's lateral or vertical navigation on an arrival.	Low
Conduct Arrival Procedures	Can explain reasons other than visibility that a go around may suddenly be required			Low
Conduct Arrival Procedures	Can explain the characteristics			Low

	of a pilot braking action report			
Conduct Arrival Procedures	Can explain items to consider when a pilot braking action report is reliable			Low
Conduct Before Takeoff Checks			Can manage the risk of errors when assigned an RNAV DP and subsequently receives a change of runway, procedure or transition by verifying the appropriate changes are entered and available for navigation prior to takeoff.	Medium
Conduct Before Takeoff Checks	Can explain the purpose of checking each item during before takeoff checks			Medium
Conduct Before Takeoff Checks	Can describe how to detect malfunctions			Medium
Conduct Before Takeoff Checks	Can ensure the aircraft is in safe operating condition			Medium
Conduct Before Takeoff Checks	Can explain deicing and anti-icing procedures			Medium

Conduct Before Takeoff Checks	Can describe how to conduct a proper pre-takeoff contamination check			Medium
Conduct Before Takeoff Checks	Can describe how adverse weather conditions effect takeoff performance (e.g., snow, ice, gusting crosswinds, low-visibility)			Medium
Conduct Before Takeoff Checks	Can give a before takeoff briefing			Medium
Conduct Before Takeoff Checks		Can determine the airplane's takeoff performance for actual conditions and planned departure runway		Medium
Conduct Before Takeoff Checks		Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		Medium
Conduct Before Takeoff Checks		Can confirm all systems checked are within an acceptable operating range and are safe for the proposed flight		Medium
Conduct Before Takeoff Checks		Can explain any system operating characteristic or limitation and any corrective action for a malfunction during the checks		Medium

Conduct Before Takeoff Checks		Can determine airspeeds/V-speeds and set flight instruments appropriately		Medium
Conduct Before Takeoff Checks		Can use flight director and autopilot controls for the current flight conditions and takeoff and departure clearances		Medium
Conduct Before Takeoff Checks		Can perform configuration of navigation equipment for takeoff and departure clearances		Medium
Conduct Before Takeoff Checks		Can configure communication equipment for takeoff and departure clearances		Medium
Conduct Before Takeoff Checks		Can obtain and correctly interpret the takeoff and departure clearance		Medium
Conduct Before Takeoff Checks		Can conduct a briefing that includes procedures for emergency and abnormal situations (e.g., powerplant failure, windshear), which may be encountered during takeoff, and state the planned action if they were to occur		Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing division of attention while	Medium

			conducting before takeoff checks	
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing an unexpected change in the runway to be used for departure	Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to verify performance data is correct and airspeeds and flight instruments are set for actual conditions and the departure runway	Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to set navigation and communication equipment for departure	Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to configure autopilot and flight director controls for departure	Medium

Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to account for adverse weather conditions prior to takeoff (e.g., snow, ice, gusting crosswinds, low-visibility)	Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing A powerplant failure during takeoff or other malfunction considering operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions	Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	Medium
Conduct Departure Procedures	Can explain takeoff minimums			Low

Conduct Departure Procedures	Can explain obstacle Departure Procedure (ODP), including Visual Climb over the Airport (VCOA) and Diverse Vector Area (Radar Vectors)			Low
Conduct Departure Procedures	Can explain Standard Instrument Departures (SID), including RNAV departure			Low
Conduct Departure Procedures	Can explain required climb gradients			Low
Conduct Departure Procedures	Can explain U.S. Terminal Procedures Publications and En Route Charts			Low
Conduct Departure Procedures	Can explain proper use of a Flight Management System (FMS) to follow a DP			Low
Conduct Departure Procedures	Can explain pilot/controller responsibilities, communication procedures, and ATC services			Low

	available to pilots			
Conduct Departure Procedures	Can explain two-way radio communication failure procedures after takeoff			Low
Conduct Departure Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)			Low
Conduct Departure Procedures	Can explain communication failure procedures			Low
Conduct Departure Procedures		Can select the appropriate instrument departure procedure.		Low
Conduct Departure Procedures		Can select, identify and use the appropriate communication facilities associated with the procedure		Low
Conduct Departure Procedures		Can select, identify and use the appropriate navigation facilities associated with the procedure		Low

Conduct Departure Procedures		Can perform programming the FMS prior to departure and execute avionics setup of flight director and autopilot controls for the departure		Low
Conduct Departure Procedures		Can use current and appropriate navigation publications or databases for the proposed flight		Low
Conduct Departure Procedures		Can initiate two-way communications with the proper controlling agency		Low
Conduct Departure Procedures		Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		Low
Conduct Departure Procedures		Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		Low
Conduct Departure Procedures		Can comply with all applicable charted procedures		Low
Conduct Departure Procedures		Can maintain the appropriate airspeed ±10 knots, headings ±10°, and altitude ±100 feet, and accurately track a course, radial, or bearing		Low

Conduct Departure Procedures		Can execute the departure phase to a point where the transition to the en route environment is complete		Low
Conduct Departure Procedures			Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures and required climb gradients	Low
Conduct Departure Procedures			Can identify, assess, and manage risks, encompassing limitations of air traffic avoidance equipment and use of see and avoid techniques	Low
Conduct Departure Procedures			Can identify, assess, and manage risks, encompassing improper automation management	Low
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system		Can execute use of LNAV mode(s).		Low

Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system		Can execute use of VNAV mode(s).		Low
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system		Can apply ATC procedures/phraseol ogy		Low
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system		Can apply functionality of vector to final mode		Low
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance		Can perform the use of navigation systems including procedure selection and ILS look-alike principle:		Low

lines of minima using the wide area augmentation system				
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system		Can perform flying of a procedure		Low
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system		Can perform setup and interpretation of electronic displays and symbols.		Low
Conduct Holding	Can explain elements related to holding procedures, including reporting criteria, appropriate speeds, and recommended entry procedures for standard, nonstandard, published, and non- published			Low

	holding patterns.			
Conduct Holding	Can explain determining holding endurance based upon factors to include an expect further clearance (EFC) time, fuel on board, fuel flow while holding, fuel required to destination and alternate, etc., as appropriate.			Low
Conduct Holding	Can explain when to declare minimum fuel or a fuel-related emergency.			Low
Conduct Holding	Can explain use of automation for holding to include autopilot and flight management systems, if equipped.			Low
Conduct Holding		Can identify instrument navigation aids associated with the assigned hold.		Low

Conduct Holding		Can apply the appropriate entry procedure for a standard, nonstandard, published, or non-published holding pattern.		Low
Conduct Holding		Can change to the appropriate holding airspeed for the airplane and holding altitude to cross the holding fix at or below maximum holding airspeed		Low
Conduct Holding		Can comply with the holding pattern leg length and other restrictions, if applicable, associated with the holding pattern.		Low
Conduct Holding		Can comply with ATC reporting requirements.		Low
Conduct Holding		Can use proper wind correction procedures to maintain the desired pattern and to arrive over the fix as close as possible to a specified time.		Low
Conduct Holding		Can maintain the airspeed ±10 knots, altitude ±100 feet, headings ±10°, and accurately track a selected course, radial, or bearing.		Low
Conduct Holding		Can use automation to include autopilot, flight director controls, and		Low

		navigation displays associated with the assigned hold.		
Conduct Holding		Can calculate fuel reserve calculations based on EFC times.		Low
Conduct Holding			Can identify, assess, and manage risks, encompassing recalculating fuel reserves if assigned an unanticipated EFC time.	Low
Conduct Holding			Can identify, assess, and manage risks, encompassing scenarios and circumstances that could result in minimum fuel or the need to declare an emergency.	Low
Conduct Holding			Can describe scenarios that could lead to holding, including deteriorating weather at the planned destination.	Low
Conduct Holding			Can identify, assess, and manage risks, encompassing improper holding entry and improper wind correction while holding.	Low

Conduct Holding			Can identify, assess, and manage risks, encompassing holding while in icing conditions.	Low
Conduct Holding			Can identify, assess, and manage risks, encompassing improper automation management.	Low
Conduct Instrument Takeoff	Can describe procedures during takeoff to address the transition from visual flight to instrument flight for both the pilot flying (PF) and pilot monitoring (PM), to include the use and limitations of any flight guidance or visual systems in use. Pilots should be aware of the operator's policy for responding to loss of suitable visual reference during takeoff, in the low and high-speed regimes, both before and after V1 (refer			Low

	to AC 120-62 for additional information and recommendations for training).			
Conduct Instrument Takeoff		Can perform applicable procedures during takeoff to address the transition from visual flight to instrument flight for both the pilot flying (PF) and pilot monitoring (PM), to include the use and limitations of any flight guidance or visual systems in use.		Low
Conduct Instrument Takeoff			Can demonstrate familiarization with operator's policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as directional control or	Low

			stopping performance is concerned, and flight crews should be familiar with appropriate constraints related to braking reports and the obscuration of appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway contaminants and condition reporting.	
Conduct Instrument Takeoff		Can execute normal takeoff at lowest applicable minima;		Low
Conduct Instrument Takeoff		Can perform takeoff with failure of the flight guidance device or ground-based guidance system, at a critical point of the takeoff, unless these systems have failure characteristics that are extremely improbable.		Low
Conduct Instrument Takeoff	Can explain operational factors that could affect an instrument takeoff (airports available in the			Low

	event of an emergency after takeoff).			
Conduct Instrument Takeoff		Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		Low
Conduct Instrument Takeoff		Can execute setting of the applicable avionics and flight instruments prior to initiating the takeoff		Low
Conduct Instrument Takeoff		Can perform radio calls as appropriate		Low
Conduct Instrument Takeoff		Can verify assigned/correct runway		Low
Conduct Instrument Takeoff		Can perform clearing the arrival area and execute taxiing into takeoff position and align the airplane on the runway centerline		Low
Conduct Instrument Takeoff		Can maintain centerline and proper flight control inputs during the takeoff roll		Low
Conduct Instrument Takeoff		can confirm takeoff power and proper engine and flight instrument indications prior to rotation making callouts, as appropriate, for the airplane or per the operator's procedures		Low

Conduct Instrument Takeoff		Can rotates and lift off at the recommended airspeed, establish the desired pitch attitude, and accelerate to the desired airspeed/ V-speed.		Low
Conduct Instrument Takeoff		Can execute a smooth transition from visual meteorological conditions (VMC) to actual or simulated instrument meteorological conditions (IMC).		Low
Conduct Instrument Takeoff		Can maintain desired heading ±5° and desired airspeeds ±5 knots.		Low
Conduct Instrument Takeoff		Can comply with ATC clearances and instructions issued by ATC, as appropriate		Low
Conduct Instrument Takeoff		Can execute appropriate after-takeoff checklist(s) in a timely manner		Low
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing selection of a runway based on aircraft performance and limitations, available distance, surface conditions,	Low

			lighting, and wind	
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing wake turbulence	Low
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for rejected takeoff	Low
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for Engine failure in takeoff phase of flight with the ceiling or visibility below the minimums for an instrument approach at departure airport	Low
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for Engine failure in climb phase of flight	Low

			with the ceiling or visibility below the minimums for an instrument approach at departure airport	
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife	Low
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for low altitude maneuvering including stall, spin, or CFIT	Low
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for distractions, loss of situational awareness, or	Low

			improper task management.	
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status			Medium
Conduct Interior and exterior preflight			Can identify, assess, and manage risks encompassing Inoperative equipment discovered prior to flight.	Medium
Conduct Interior and exterior preflight			Can identify, assess, and manage risks encompassing external pressures and Aviation security concerns.	Medium
Conduct Landing from a Precision Approach	Can recognize significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH.			Low
Conduct Landing from a Precision Approach		Can perform proper reaction to significant airborne system failures experienced prior to and after reaching the final approach		Low

		fix (FAF), MDA, DA/DH, or AH. Expected pilot response to failure after touchdown should be addressed as well.		
Conduct Landing from a Precision Approach	Can recognize ground or navigation system faults, failures or abnormalities at any point during the approach and landing.			Low
Conduct Landing from a Precision Approach		Can recognize and execute appropriate actions in response to ground or navigation system faults, failures or abnormalities at any point during the approach and landing.		Low
Conduct Landing from a Precision Approach			Can appreciate that pilots should be familiar with the need to report navigation system anomalies or discrepancies, failures of any lighting system (e.g., approach lights, runway lights, touchdown zone (TDZ) lights, centerline lights), or any	Low

			other discrepancies that could be pertinent to operations.	
Conduct Landing from a Precision Approach			Can demonstrate familiarization with operator’s policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as directional control or stopping performance is concerned, and flight crews should be familiar with appropriate constraints related to braking reports and the obscuration of appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway contaminants	Low

			and condition reporting.	
Conduct Landing from a Precision Approach	Can explain elements related to the pilot’s responsibilities, and the environmental, operational, and meteorological factors that affect landing from a precision approach.			Low
Conduct Landing from a Precision Approach	Can explain approach lighting systems and runway and taxiway signs, markings and lighting.			Low
Conduct Landing from a Precision Approach		Can maintain the desired airspeed, ±5 knots, and vertical and lateral guidance within ¼-scale deflection of the indicators during the descent from DA/DH to a point		Low

		where visual maneuvering is used to accomplish a normal landing.		
Conduct Landing from a Precision Approach		Can comply with all ATC advisories, such as NOTAMs, windshear, wake turbulence, runway surface, braking conditions, and other operational considerations.		Low
Conduct Landing from a Precision Approach		Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		Low
Conduct Landing from a Precision Approach		Can maintain positive airplane control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		Low
Conduct Landing from a Precision Approach		Can demonstrate SRM or CRM, as appropriate.		Low
Conduct Landing from a Precision Approach		Can apply runway incursion avoidance procedures.		Low

Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing selection of an approach procedure and runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	Low
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing wake turbulence.	Low
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for missed approach	Low
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for land and hold short operations (LAHSO)	Low
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for collision hazards, to include aircraft, terrain, obstacles, wires,	Low

			vehicles, vessels, persons, and wildlife.	
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for low altitude maneuvering including stall, spin, or CFIT.	Low
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for distractions, loss of situational awareness, or improper task management.	Low
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for attempting to land from an unstable approach.	Low
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for flying below the glidepath.	Low
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for transitioning	Low

			from instrument to visual references for landing.	
Conduct Missed Approach	Can explain that when executing a missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure			Low
Conduct Missed Approach		Can execute a missed approach from the MDA, DA/DH, or AH.		Low

Conduct Missed Approach		Can execute a missed approach from a low altitude that could result in a touchdown during go-around (balked or rejected landing).		Low
Conduct Missed Approach	Can explain elements related to missed approach procedures to include reference to standby or backup instruments.			Low
Conduct Missed Approach	Can explain limitations associated with standard instrument approaches, including while using an FMS or autopilot, if equipped.			Low
Conduct Missed Approach		Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		Low
Conduct Missed Approach		Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and		Low

		initiate a positive rate of climb at the appropriate airspeed/V- speed, ±5 knots.		
Conduct Missed Approach		Can coordinate with crew and execute the appropriate procedures and checklist(s) in a timely manner.		Low
Conduct Missed Approach		Can comply with the published or alternate missed approach procedure.		Low
Conduct Missed Approach		Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		Low
Conduct Missed Approach		Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure.		Low
Conduct Missed Approach		Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		Low
Conduct Missed Approach		Can demonstrate effective CRM		Low
Conduct Missed Approach		Can execute re-engagement of the autopilot at appropriate times during the missed approach procedure.		Low

Conduct Missed Approach		Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix, or other clearance limit, as appropriate, or as directed by the evaluator.		Low
Conduct Missed Approach			Can identify, assess, and manage risks, encompassing failure to follow prescribed procedures.	Low
Conduct Missed Approach			Can identify, assess, and manage risks, encompassing holding, diverting, or electing to fly the approach again.	Low
Conduct Missed Approach			Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	Low
Conduct Missed Approach			Can identify, assess, and manage risks, encompassing factors that might lead to executing a missed approach	Low

			procedure before the MAP or to a go-around below DA/MDA.	
Conduct Missed Approach			Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	Low
Conduct Nonprecision Approach	Can explain that unstabilized approaches are a key contributor to CFIT events, and explain that present NPAs are designed with and without stepdown fixes in the final approach			Low
Conduct Nonprecision Approach	Can explain why stepdowns flown without a constant descent will require multiple thrust, pitch, and altitude adjustments inside the final approach fix (FAF), and can explain that these adjustments			Low

	increase pilot workload and potential errors during a critical phase of flight.			
Conduct Nonprecision Approach	Can explain that the practice commonly referred to as “dive and drive,” can result in extended level flight as low as 250 feet above the ground in instrument meteorological conditions (IMC) and shallow or steep final approaches.			Low
Conduct Nonprecision Approach	Can explain that a stabilized approach is a key feature to a safe approach and landing. Can explain that operators are encouraged by the FAA and the International Civil Aviation Organization (ICAO) to use the stabilized approach concept to help			Low

	eliminate CFIT.			
Conduct Nonprecision Approach	Can explain that the stabilized approach concept is characterized by maintaining a stable approach speed, descent rate, vertical flightpath, and configuration to the landing touchdown point			Low
Conduct Nonprecision Approach	Can explain that precision IAPs and approach procedures with vertical guidance (APV) have a continuous descent approach profile in their design.			Low
Conduct Nonprecision Approach	Can explain that NPAs were not originally designed with this vertical path, but may easily be flown using the CDFA (continuous			Low

	descent final approach) technique.			
Conduct Nonprecision Approach	Can explain why Flying NPAs with a continuous descent profile will provide a safety advantage over flying approaches using the “dive and drive” technique.			Low
Conduct Nonprecision Approach	Can explain that CDFA is a technique for flying the final approach segment of an NPA as a continuous descent. The technique is consistent with stabilized approach procedures and has no level-off.			Low
Conduct Nonprecision Approach	Can explain the six advantages of CDFA: Increased safety by employing the concepts of stabilized approach criteria and procedure standardization			Low

	; Improved pilot situational awareness (SA) and reduced pilot workload; Improved fuel efficiency by minimizing the low-altitude level flight time; Reduced noise level by minimizing the level flight time at high thrust settings; Procedural similarities to APV and precision approach operations; Reduced probability of infringement on required obstacle clearance during the final approach segment.			
Conduct Nonprecision Approach	Can explain that CDFA requires no specific aircraft equipment other than that specified by the title of the NPA procedure and that Pilots can			Low

	safely fly suitable NPAs with CDFA using basic piloting techniques, aircraft flight management systems (FMS) and RNAV systems, or by manually computing rate of descent.			
Conduct Nonprecision Approach	Can calculate a rate of descent for VDA (see example in this paragraph)			Low
Conduct Nonprecision Approach	Can explain that some approach characteristics (e.g., circling-only minima) and environmental factors (e.g., icing) could make the use of CDFA inadvisable.			Low
Conduct Nonprecision Approach			Can appreciate that there are environments in which using CDFA technique is not advisable or practical, for example airports that do not offer straight in nonprecision approaches.	Low

Conduct Nonprecision Approach	Can explain procedures and limitations associated with a nonprecision approach, including the differences between Localizer Performance (LP) and Lateral Navigation (LNAV) approach guidance			Low
Conduct Nonprecision Approach	Can explain navigation system displays and annunciations, modes of operation, and RNP lateral accuracy values associated with an RNAV (GPS) approach.			Low
Conduct Nonprecision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation			Low

	data, signal integrity).			
Conduct Nonprecision Approach	Can explain criteria for a stabilized approach, to include energy management concepts.			Low
Conduct Nonprecision Approach		Can perform the nonprecision instrument approaches selected by the instructor/evaluator		Low
Conduct Nonprecision Approach		Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		Low
Conduct Nonprecision Approach		Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		Low
Conduct Nonprecision Approach		Can Comply with all clearances issued by ATC.		Low
Conduct Nonprecision Approach		Can recognize if any flight instrumentation is inaccurate or		Low

		inoperative, and take appropriate action.		
Conduct Nonprecision Approach		Can coordinate with ATC if unable to comply with a clearance.		Low
Conduct Nonprecision Approach		Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		Low
Conduct Nonprecision Approach		Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		Low
Conduct Nonprecision Approach		Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		Low
Conduct Nonprecision Approach		Can maintain a stabilized descent to the appropriate altitude.		Low

Conduct Nonprecision Approach		Can maintain no more than ¼ scale CDI deflection, airspeed ±5 knots of selected value, and altitude above MDA +50/-0 feet (to the VDP or MAP) during the final approach segment		Low
Conduct Nonprecision Approach		Can execute the missed approach procedure if the required visual references are not distinctly visible and identifiable at the appropriate point or altitude for the approach profile, or execute a normal landing from a straight-in or circling approach.		Low
Conduct Nonprecision Approach		Can use a Multi-Function Display (MFD) and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		Low
Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing Failure to follow the correct approach procedure (e.g., descending too early, etc.).	Low

Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing Selecting an incorrect navigation frequency.	Low
Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing Failure to manage automated navigation and auto flight systems.	Low
Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing Failure to ensure proper airplane configuration during an approach and missed approach.	Low
Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing an unstable approach, including excessive descent rates.	Low
Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing Deteriorating weather	Low

			conditions on approach.	
Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing Operating below the minimum descent altitude (MDA) or continuing a descent below decision altitude (DA) without proper visual references.	Low
Conduct Normal Approach and Landing		Can execute normal landings at the lowest applicable minima for each authorized flight guidance and/or visual system.		Low
Conduct Normal Approach and Landing		Can perform manual rollout in low visibility at applicable minima. (except for aircraft using an automatic fail operational (FO) rollout system)		Low
Conduct Normal Approach and Landing		Can perform landings at the limiting environmental conditions authorized for that operator with respect to wind, crosswind components, and runway surface friction characteristics		Low

Conduct Normal Approach and Landing	Can explain stabilized approach, to include energy management concepts.			Low
Conduct Normal Approach and Landing	Can explain effects of atmospheric conditions, including wind, on approach and landing performance.			Low
Conduct Normal Approach and Landing	Can explain wind correction techniques on approach and landing.			Low
Conduct Normal Approach and Landing	Can identify airport and runway markings, signs, and lights			Low
Conduct Normal Approach and Landing		Can coordinate with crew and execute after landing checklists(s).		Low
Conduct Normal Approach and Landing		Can perform radio calls as appropriate		Low
Conduct Normal Approach and Landing		Can maintain a ground track that ensures the desired traffic pattern will be flown taking into consideration obstructions and ATC		Low
Conduct Normal Approach and Landing		Can confirm the airplane is aligned with the		Low

		correct/assigned runway or landing surface.		
Conduct Normal Approach and Landing		Can scan runway or landing surface and adjoining area for traffic and obstructions.		Low
Conduct Normal Approach and Landing		Can select a suitable touchdown point considering wind, landing surface, and obstructions.		Low
Conduct Normal Approach and Landing		Can perform establishing the recommended approach and landing configuration and airspeed, ±5 knots, and adjust pitch attitude and power as required to maintain a stabilized approach.		Low
Conduct Normal Approach and Landing		Can maintain directional control and appropriate crosswind correction throughout the approach and landing.		Low
Conduct Normal Approach and Landing		Can perform smooth, timely, and correct control application before, during, and after touchdown.		Low
Conduct Normal Approach and Landing		Can execute touch down with the runway centerline between the main landing gear at the appropriate speed and pitch attitude at		Low

		the runway aiming point markings -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		
Conduct Normal Approach and Landing		Can execute deceleration to taxi speed (20 knots or less on dry pavement, 10 knots or less on contaminated pavement) to within the calculated landing distance plus 25% for the actual conditions with the runway centerline between the main landing gear		Low
Conduct Normal Approach and Landing		Can execute a timely go-around if the approach cannot be made within the tolerances specified above or for any other condition that may result in an unsafe approach or landing.		Low
Conduct Normal Approach and Landing		Can apply runway incursion avoidance procedures.		Low
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing selection of a runway or approach path	Low

			and touchdown area-based aircraft limitations, available distance, surface conditions, and wind.	
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing wake turbulence.	Low
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing Go-Around/Rejected Landing	Low
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing land and Hold Short Operations (LAHSO)	Low
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Low
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing low altitude	Low

			maneuvering including stall, spin, or CFIT.	
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, incorrect airport surface approach and landing, or improper task management.	Low
Conduct Normal Takeoff and Climb		Can perform takeoff in limiting crosswinds, winds, gusts, and runway surface friction to levels authorized. Training should be done at weights or on runways that represent a critical field length		Low
Conduct Normal Takeoff and Climb	Can describe the effects of atmospheric conditions, including wind, on takeoff and climb performance			Low
Conduct Normal Takeoff and Climb	Can describe the appropriate V-speeds for takeoff and climb			Low
Conduct Normal Takeoff and Climb	Can describe the appropriate aircraft configuration and power			Low

	setting for takeoff and climb			
Conduct Normal Takeoff and Climb	Can identify airport and runway markings, signs, and lights			Low
Conduct Normal Takeoff and Climb		Can coordinate with crew and complete the appropriate checklist(s) prior to takeoff in a timely manner		Low
Conduct Normal Takeoff and Climb		Can perform radio calls as appropriate		Low
Conduct Normal Takeoff and Climb		Can verify assigned/correct runway		Low
Conduct Normal Takeoff and Climb		Can verify the airplane is configured for takeoff		Low
Conduct Normal Takeoff and Climb		Can execute clearing of the area and taxi into takeoff position and align the airplane on the runway centerline		Low
Conduct Normal Takeoff and Climb		Can maintain centerline and proper flight control inputs during the takeoff roll		Low
Conduct Normal Takeoff and Climb		Can confirm takeoff power and proper engine and flight instrument indications prior to rotation and perform callouts as appropriate, for the airplane or per the		Low

		operator's procedures		
Conduct Normal Takeoff and Climb		Can perform rotation and lift off at the recommended airspeed		Low
Conduct Normal Takeoff and Climb		Can maintain a power setting and a pitch attitude to maintain the desired climb airspeed/V-speed, ±5 knots for each climb segment		Low
Conduct Normal Takeoff and Climb		Can maintain desired heading ±5°		Low
Conduct Normal Takeoff and Climb		Can perform Retraction of the landing gear and flaps in accordance with manufacturer or operator procedures and limitations, as appropriate		Low
Conduct Normal Takeoff and Climb		Can perform wake turbulence avoidance		Low
Conduct Normal Takeoff and Climb		Can follow noise abatement procedures		Low
Conduct Normal Takeoff and Climb		Can execute appropriate after-takeoff checklist(s) in a timely manner		Low
Conduct Normal Takeoff and Climb			Can identify, assess, and manage risks, encompassing selection of a runway, or runway intersection	Low

			aircraft limitations, available distance, surface conditions, and wind	
Conduct Normal Takeoff and Climb			Can identify, assess, and manage risks, encompassing wake turbulence	Low
Conduct Normal Takeoff and Climb			Can demonstrate proper planning for rejected takeoff	Low
Conduct Normal Takeoff and Climb			Can demonstrate proper planning for engine failure in takeoff phase of flight	Low
Conduct Normal Takeoff and Climb			Can demonstrate proper planning for engine failure in climb phase of flight	Low
Conduct Normal Takeoff and Climb			Can identify, assess, and manage risks, encompassing improper aircraft configuration or settings (e.g., trim, flaps, autobrakes, etc.)	Low
Conduct Normal Takeoff and Climb			Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles,	Low

			vessels, persons, and wildlife	
Conduct Normal Takeoff and Climb			Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management	Low
Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations without APU			Medium
Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations with APU			Medium
Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations without APU			Medium
Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations with APU			Medium
Conduct Powerplant Start	Can explain procedures for starting engines under			Medium

	various conditions			
Conduct Powerplant Start	Can explain possible malfunctions during powerplant start, procedures to address the malfunction, and any associated limitations			Medium
Conduct Powerplant Start	Can describe coordinating and communicating with ground personnel for powerplant start, if applicable			Medium
Conduct Powerplant Start		Can ensure the ground safety procedures are followed during the before-start, start, and after- start phase		Medium
Conduct Powerplant Start		Can coordinate with crew and complete the appropriate checklist(s) prior to and after powerplant start.		Medium
Conduct Powerplant Start		Can identify an abnormal start or malfunction and execute the correct procedure		Low
Conduct Powerplant Start			Can identify, assess, and manage risks encompassing malfunctions	Medium

			during powerplant start	
Conduct Powerplant Start			Can identify, assess, and manage risks encompassing turbine powerplant safety	Medium
Conduct Powerplant Start			Can identify, assess, and manage risks encompassing managing situations where specific instructions or checklist items are not published	Medium
Conduct Powerplant Start			Can identify, assess, and manage risks encompassing personnel, vehicles, vessels, foreign object debris, and other aircraft in the vicinity during powerplant start	Medium
Conduct Precision Approach	Can describe normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations,			Low

	appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures			
Conduct Precision Approach		Can perform appropriate normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures		Low

Conduct Precision Approach	Can describe procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.			Low
Conduct Precision Approach		Can perform procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.		Low
Conduct Precision Approach	Can recognize the limits of acceptable aircraft position and flightpath tracking during approach, flare and rollout. This should be addressed using appropriate displays or annunciations for either automatic or manual landing systems.			Low

Conduct Precision Approach			Can appreciate constraints for head winds, tail winds, crosswinds, and the effect of vertical and horizontal wind shear on automatic systems, flight directors (F/D), or other system (e.g., HUD, SVGS, etc.) performance. For systems such as HUDs that have a limited field of view (FOV), or synthetic reference systems, pilots should be familiar with the display limitations of these systems and expected pilot actions in the event that the aircraft reaches or exceeds a display limit capability.	Low
Conduct Precision Approach		Can execute types of instrument procedures approved for the air carrier (standard and special, lowest straight-in, or circling minima, if		Low

		applicable); according to the operator's manuals, charts and checklists, on the aircraft type, model and series flown.		
Conduct Precision Approach		Can use flight guidance and/or visual system(s) and their corresponding category(s) of minima for each authorized system;		Low
Conduct Precision Approach		Can use NAVAID(s) and visual aids used (LVO/SMGCS lighting if applicable);		Low
Conduct Precision Approach		Can apply Flightcrew procedures used (e.g., PF/PM duties, monitored approach, or call-outs);		Low
Conduct Precision Approach			Can demonstrate familiarization with airport and runway characteristics typically experienced;	Low
Conduct Precision Approach	Can identify nearby critical terrain or obstruction environment;			Low

Conduct Precision Approach		Can perform relevant normal, non-normal, and environmental conditions. Training and evaluation need only be conducted using relevant and representative procedures and conditions (e.g., a representative mix of day, night, dusk, variable/patchy conditions, representative temperatures, landing runway altitudes, precipitation conditions, turbulence, and icing conditions); and		Low
Conduct Precision Approach		Can respond appropriately to aircraft and ground system failures.		Low
Conduct Precision Approach	Can explain procedures and limitations associated with a precision approach, including determining required descent rates and adjusting minimums in the case of inoperative equipment.			Low
Conduct Precision Approach	Can explain navigation			Low

	system displays, annunciations, and modes of operation.			
Conduct Precision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).			Low
Conduct Precision Approach	Can explain stabilized approach criteria, to include energy management concepts.			Low
Conduct Precision Approach		Can perform the precision instrument approaches selected by the instructor/evaluator.		Low
Conduct Precision Approach		Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		Low

Conduct Precision Approach		Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		Low
Conduct Precision Approach		Can comply in a timely manner with all clearances, instructions, and procedures.		Low
Conduct Precision Approach		Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		Low
Conduct Precision Approach		Can coordinate with ATC if unable to comply with a clearance.		Low
Conduct Precision Approach		Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		Low
Conduct Precision Approach		Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		Low

Conduct Precision Approach		Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		Low
Conduct Precision Approach		Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		Low
Conduct Precision Approach		Can maintain a stabilized final approach from the Final Approach Fix (FAF) to DA/DH allowing no more than ¼-scale deflection of either the vertical or lateral guidance indications and maintain the desired airspeed ±5 knots		Low
Conduct Precision Approach		Can immediately initiate the missed approach procedures if the required visual references for the runway are not distinctly visible and		Low

		identifiable upon reaching the DA/DH.		
Conduct Precision Approach		Can, upon reaching the DA/DH, perform a transition to a normal landing when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering		Low
Conduct Precision Approach		Can use an MFD and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		Low
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing failure to follow the correct approach procedure (e.g., descending below the glideslope, etc.).	Low
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing selecting an incorrect navigation frequency.	Low

Conduct Precision Approach			Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	Low
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	Low
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing an unstable approach, including excessive descent rates.	Low
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing deteriorating weather conditions on approach.	Low
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing continuing to descend below the Decision	Low

			Altitude (DA)/Decision Height (DH) when the required visual references are not visible.	
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can verify currency and integrity of aircraft navigation data		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can obtain a receiver autonomous integrity monitoring (RAIM) prediction for the planned RNP operation		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can verify successful completion of RNP system self-tests;		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO		Can perform initialization navigation system position		Low

standards for RNP operations.				
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform retrieval of an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can execute an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform adherence to speed and/or altitude constraints associated with RNP operations		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can select the appropriate STAR or SID for the active runway in use and be familiar with procedures to deal with a runway change		Low

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can verify waypoints and flight plan programming;		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform a manual or automatic runway update (with takeoff point shift for Inertial Reference Units (IRU) only);		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform flying direct to a waypoint		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform flying a course/track to a waypoint		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace,		Can perform interception of a course/track		Low

and in foreign countries which adopt ICAO standards for RNP operations.				
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform flying vectors, and rejoining an RNP route/procedure from the 'heading' mode;		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform selecting/arming the navigation system for an ILS or GLS transition		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform insertion and deletion of a route discontinuity;		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform removal and reselection of a navigation sensor input;		Low

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can confirm exclusion of a specific navigation aid or navigation aid type (distance measuring equipment (DME) and very high frequency omni-directional range (VOR) only);		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform changing of the arrival airport and alternate airport		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can verify the RNP value set in the flight management system (FMS) matches the equipment capability and authorizations as annotated in the flight plan		Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform parallel offset function if capability exists		Low
Conduct use of FMS		Can perform use of the automatic throttle, flight management		Low

		computer, or other speed management system, if applicable.		
Conduct use of FMS			Can manage the risk of errors when receiving a change to assigned routing by ensuring the waypoints sequence depicted by their navigation system matches the route depicted on the appropriate chart(s) and their assigned route	Medium
Conduct use of FMS		Can verify currency of aircraft navigation data.		Medium
Conduct use of FMS		Can perform flying a course/track to a waypoint.		Low
Conduct use of FMS		Can perform interception of a course/track		Low
Conduct use of FMS		Can comply with a vectored off and execute rejoining a procedure.		Low
Conduct use of FMS		Can determine cross-track error/deviation		Low
Conduct use of FMS		Can execute insertion and deletion of a route discontinuity		Low
Conduct use of FMS		Can execute removal and reselection of		Low

		navigation sensor inputs.		
Conduct use of FMS		Can confirm exclusion of a specific navigation aid or navigation aid type.		Low
Conduct use of FMS		Can execute insertion and deletion of a lateral offset		Low
Conduct use of FMS		Can execute a change of the arrival airport and alternate airport		Low
Conduct use of FMS		Can execute insertion and delete a holding pattern		Low
Conduct use of FMS		Can verify successful completion of RNAV system self-tests		Medium
Conduct use of FMS		Can execute initialization of RNAV system position		Medium
Conduct use of FMS		Can execute retrieval and flying of a DP or STAR with appropriate transition		Medium
Conduct use of FMS		Can comply with speed and/or altitude constraints associated with a DP or STAR.		Low
Conduct use of FMS		Can execute making a runway change associated with a DP or STAR		Low
Conduct use of FMS		Can verify waypoints and flight plan programming		Medium

Conduct use of FMS		Can perform a manual or automatic runway update (with takeoff point shift, if applicable)		Low
Conduct use of FMS		Can perform flying direct to a waypoint		Low
Conduct use of FMS		Can perform a complex SID consisting of multiple altitude and speed constraints		Low
Conduct use of FMS		Can perform a complex STAR consisting of multiple altitude and speed constraints		Low
Conduct use of FMS		Can input a lat/long waypoint to the FMS		Low
Conduct use of FMS		Can demonstrate general awareness of all three styles of flight director		Low
Conduct use of FMS		Can identify symbology available in synthetic vision system		Low
Conduct use of FMS		Can differentiate between conformal and non-conformal scaling in the HUD and synthetic vision		Low
Conduct use of FMS		Can use the cursor control device effectively		Medium
Conduct use of FMS		Can perform transition between automatic (FMS-controlled) to manual mode and back in the event of a flightpath deviation due to		Low

		input error or system malfunction.		
Conduct use of TCAS		Can demonstrate the proper use of controls including aircraft configuration required to initiate a self-test.		Medium
Conduct use of TCAS		Can demonstrate the proper use of controls including steps required to initiate a self-test.		Medium
Conduct use of TCAS		Can demonstrate the proper use of controls including recognizing when the self-test was successful and when it was unsuccessful. When the self-test is unsuccessful, recognizing the reason for the failure, and if possible, correcting the problem.		Medium
Understand Avionics and communications - autopilot	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - autopilot	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of			Medium

	the airplane system, subsystem or device			
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate			Medium
Understand Avionics and communications - communication systems (e.g., data	Can use the appropriate checklists and NORMAL procedures to			Medium

link, UHF/VHF/HF, satellite)	demonstrate or describe the proper use of the airplane system, subsystem or device			
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Medium

Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List			Medium

	(CDL) to document inoperative components of this system and explain related procedures			
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)			Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)			Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)			Can identify, assess, and manage risks encompassing improper management of a system failure	Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)			Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	Medium
Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable			Low

Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain system or component limitations			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain immediate action items or memory items, if appropriate			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of			Medium

	this system and explain related procedures			
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing improper management of a system failure	Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain the features of the PlaneView System			Medium
Understand Avionics and communications - Electronic Flight	Can describe the functional characteristics			Medium

Instrument Systems (EFIS)	of the cursor control device			
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Crew Alerting System (CAS) Caution Messages and Procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Synthetic Vision-Primary Flight Display Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Avionics and communications - Flight Management System (FMS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and communications - ground-based navigation systems and components	Can describe the operation of the airplane systems and components using correct terminology			Medium

Understand Avionics and communications - indicating devices		Can interpret flight path vector symbology as it relates to the PFD and HUD, both caged and uncaged		Low
Understand Avionics and communications - indicating devices	Can interpret PFD mode annunciations			Low
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and Communications - Instruments	Can interpret situation information displays, as applicable.			Medium
Understand Avionics and communications - Radar	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - Radar	Can use the appropriate checklists and NORMAL procedures to			Low

	demonstrate or describe the proper use of the airplane system, subsystem or device			
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can apply monitoring procedures for each phase of flight (e.g., monitor PROG or LEGS page)		Low
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can demonstrate familiarization with automatic and/or manual setting of the required RNP value		Low
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can demonstrate familiarization with the navigation equipment regarding lateral and vertical capture from an RNP routing to an instrument landing system (ILS) or Ground Based Augmentation System (GBAS) Landing System (GLS)		Low

Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can demonstrate how offsets are applied, the functionality of their particular navigation system and the need to advise air traffic control (ATC) if this functionality is not available		Low
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can apply receiver/transmitter (R/T) phraseology for RNP applications		Low
Understand Avionics and communications - terrain awareness/warning/alert systems	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - terrain awareness/warning/alert systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and communications - transponder	Can describe the operation of the airplane systems and			Medium

	components using correct terminology			
Understand Avionics and communications - transponder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain the airspeeds used during specific phases of flight			Medium

Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining takeoff performance (e.g.,			Can identify, assess, and manage risks encompassing	Medium

balance field length, VMCG) per AFM			airplane icing and its effect on performance and stall warning, and Runway excursions	
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM			Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the airspeeds used during specific phases of flight			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase			Medium

	of flight and apply these factors to a specific chart, table, graph, or other performance data			
Understand determining accelerate-stop / accelerate-go distance per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM			Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium

Understand determining accelerate-stop / accelerate-go distance per AFM			Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Distance			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Run			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM			Can appreciate that take off distance numbers provided by the AFM are the most restrictive result of numerous part 25 requirements	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Accelerate-Stop Distance			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed			Medium
Understand determining accelerate-stop /	Can explain the importance of timely			Medium

accelerate-go distance per AFM	decisions in relation V_1			
Understand determining accelerate-stop / accelerate-go distance per AFM	Can state the different causes of RTOs			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the difference between Takeoff Distance and Takeoff Run			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the Balanced Field Concept			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain why V_1 can be no less than V_{MCG} nor can be no more than V_R			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.			Medium

Understand determining accelerate-stop / accelerate-go distance per AFM	Can conduct a complete takeoff briefing and explain its importance			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely and correct decisions related to rejected takeoffs (RTO)			Medium
Understand determining climb performance per AFM	Can explain why OEI data may not ensure climb gradient compliance nor obstacle clearance			Medium
Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for “all engine” or “engine inoperative” missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around			Medium

	procedures, acceleration segments or transition following an engine failure between the specified “all-engine lateral flightpath” (or radar vectors) and any specified “engine-inoperative lateral flightpath,” using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.			
Understand determining climb performance per AFM	Can explain considerations for OEI departure development			Medium
Understand determining climb performance per AFM	Can state the definition of takeoff segment			Medium
Understand determining climb performance per AFM	Can state the definitions of gross and net flightpath			Medium
Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to			Medium

	determine performance			
Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining climb performance per AFM	Can explain the airspeeds used during specific phases of flight			Medium
Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			Medium
Understand determining climb performance per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium

Understand determining climb performance per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining climb performance per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining climb performance per AFM			Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and runway excursions	Medium
Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators			Medium
Understand determining climb performance per AFM	Can locate FAA TALPA videos online			Medium
Understand determining climb performance per AFM	Can describe the segments of an instrument			Medium

	departure procedure			
Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures			Medium
Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures			Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain the airspeeds used during specific phases of flight			Medium

Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining cruise performance (e.g., optimum and			Can identify, assess, and manage risks encompassing	Medium

maximum operating altitudes) per AFM			airplane icing and its effect on performance and stall warning, and Runway excursions	
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM			Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining descent performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining descent performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining descent performance per AFM	Can explain the airspeeds used during specific phases of flight			Medium
Understand determining descent performance per AFM	Can describe the effects of meteorological conditions on performance for any phase			Medium

	of flight and apply these factors to a specific chart, table, graph, or other performance data			
Understand determining descent performance per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining descent performance per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining descent performance per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining descent performance per AFM			Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium

Understand determining descent performance per AFM			Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining fuel requirements per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining fuel requirements per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining fuel requirements per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			Medium
Understand determining fuel			Can explain the adverse effects of exceeding an	Medium

requirements per AFM			airplane limitation or the airplane operating envelope.	
Understand determining fuel requirements per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain the airspeeds used during specific phases of flight			Medium

Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining performance with an inoperative			Can identify, assess, and manage risks encompassing	Medium

powerplant for all phases of flight per AFM			airplane icing and its effect on performance and stall warning, and Runway excursions	
Understand determining performance with an inoperative powerplant for all phases of flight per AFM			Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM - Engine Failure Considerations procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations			Medium

	for all phases of flight			
Understand determining weight and balance per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining weight and balance per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Electrical System - controls	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium

Understand Electrical System - generators	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Electrical System - generators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Electrical System - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Electrical System - batteries	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Electrical System - batteries	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the			Medium

	proper use of the airplane system, subsystem or device			
Understand Flight Controls - flaps	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Flight Controls - flaps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Flight Controls - speed brakes	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Flight Controls - speed brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium

Understand Flight Controls - spoilers	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Flight Controls - spoilers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Flight Controls - trim systems	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Flight Controls - trim systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Fuel system - capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology			Medium

Understand Fuel system - capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Hydraulic system - pressure	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Hydraulic system - pressure	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Hydraulic system - pumps	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Hydraulic system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the			Medium

	proper use of the airplane system, subsystem or device			
Understand Hydraulic system - regulators/accumulators	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Ice Protection - anti-ice & de-ice.	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Ice Protection - anti-ice & de-ice.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium

Understand Ice Protection airfoil surfaces	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Landing Gear - brakes	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Landing Gear - brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Landing Gear - indicators	Can describe the operation of the airplane systems and components using correct terminology			Medium

Understand Landing Gear - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand OEM checklist philosophy			Can appreciate that while there are no defined memory items in the AFM, pilots should still be familiar enough with the aircraft to be able to perform initial and critical items without first referencing associated documentation. In addition, pilots are expected to don oxygen masks promptly when appropriate (e.g., when smoke is detected).	Medium
Understand OEM checklist philosophy			Can appreciate that abnormal and emergency procedures are presented in quick reference handbooks (QRH) of an identical format	Medium

			for all three aircraft. Although some individual steps may differ or use different acronyms, these steps are carried out under the guidance of the handbook in a logical decision-making manner	
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can describe the operation of the airplane systems and components using correct terminology			Medium

Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Pneumatic and environmental system - pressurization	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Pneumatic and environmental system - pressurization	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium

SIT 3 Learning Objectives

Tasks	**Knowledge & Cognitive Learning Objectives**	**Motor Skill Learning Objectives**	**Attitude Learning Objectives**	**Task Expectation Rating**
Understand determining landing performance per AFM	Can explain the parameters and importance of a stabilized approach			Medium
Understand determining landing	Can explain the importance of			Medium

performance per AFM	accurate and timely assessments of landing distance			
Understand determining landing performance per AFM	Can explain the origin and use of runway Declared Distances			Medium
Understand determining landing performance per AFM	Can identify and manage risks associated with runway overruns during the landing			Medium
Understand determining landing performance per AFM	Can explain the risks associated with tailwind landings and landings on contaminated runways			Medium
Understand determining landing performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining landing performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining landing performance per AFM	Can explain the airspeeds used during specific phases of flight			Medium
Understand determining landing performance per AFM	Can describe the effects of meteorological conditions on performance for			Medium

	any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			
Understand determining landing performance per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining landing performance per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining landing performance per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining landing performance per AFM			Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium

Understand determining landing performance per AFM			Can identify, assess, and manage risks encompassing runway excursions	Medium
Conduct after landing, parking and securing	Can explain parking, shutdown, securing, and postflight inspection.			Medium
Conduct after landing, parking and securing		Can demonstrate runway incursion avoidance procedures.		Medium
Conduct after landing, parking and securing		Can comply with ATC instructions and perform radio calls as appropriate.		Medium
Conduct after landing, parking and securing		Can coordinate with crew, if applicable, and execute the appropriate checklist(s) after clearing the runway.		Medium
Conduct after landing, parking and securing		Can perform parking in the appropriate area, considering the safety of nearby persons and property.		Medium
Conduct after landing, parking and securing		Can execute a postflight inspection and document discrepancies and servicing requirements, if any.		Medium

Conduct after landing, parking and securing		Can perform securing the airplane.		Medium
Conduct after landing, parking and securing			Can identify, assess, and manage risks, encompassing inappropriate activities and distractions.	Medium
Conduct after landing, parking and securing			Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions.	Medium
Conduct after landing, parking and securing			Can identify, assess, and manage risks, encompassing propeller, turbofan inlet, and exhaust safety.	Medium
Conduct after landing, parking and securing			Can identify, assess, and manage risks, encompassing airport specific security procedures.	Medium
Conduct after landing, parking and securing			Can identify, assess, and manage risks, encompassing disembarking passengers.	Medium
Conduct Arrival Procedures			Can manage the risk of errors when assigned a STAR and subsequently	Medium

			receives a change of landing runway, procedure or transition by verifying the appropriate changes are entered and available for navigation	
Conduct Arrival Procedures	Can use standard Terminal Arrival (STAR) charts, U.S. Terminal Procedures Publications, and IFR Enroute High and Low Altitude Charts			Medium
Conduct Arrival Procedures	Can use a Flight Management System (FMS) or GPS to follow a STAR			Medium
Conduct Arrival Procedures	Can explain two-way radio communication failure procedures during an arrival			Medium
Conduct Arrival Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)			Medium

Conduct Arrival Procedures		Can select, identify and use the appropriate communication and navigation facilities associated with the arrival		Medium
Conduct Arrival Procedures		Can perform setup of FMS and avionics to include flight director and autopilot controls for the arrival, if applicable		Medium
Conduct Arrival Procedures		Can use current and appropriate navigation publications or databases for the proposed flight		Medium
Conduct Arrival Procedures		Can initiate two-way communications with the proper controlling agency		Medium
Conduct Arrival Procedures		Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		Medium
Conduct Arrival Procedures		Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		Medium
Conduct Arrival Procedures		Can comply with all applicable charted procedures		Medium
Conduct Arrival Procedures		Can comply with airspeed restrictions		Medium

		required by regulation, procedure, aircraft limitation or ATC		
Conduct Arrival Procedures		Can maintain rate of descent consistent with the route segment, airplane operating characteristics and safety		Medium
Conduct Arrival Procedures		Can maintain the appropriate airspeed/V-speed ±10 knots, but not less than VRef if applicable, heading ±10°, altitude ±100 feet, and accurately track radials, courses, and bearings		Medium
Conduct Arrival Procedures			Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures.	Medium
Conduct Arrival Procedures			Can identify, assess, and manage risks, encompassing failure to recognize limitations of traffic avoidance equipment.	Medium
Conduct Arrival Procedures			Can identify, assess, and manage risks,	Medium

			encompassing failure to use see and avoid techniques when possible.	
Conduct Arrival Procedures			Can identify, assess, and manage risks, encompassing improper automation management.	Medium
Conduct Arrival Procedures			Can identify, assess, and manage risks, encompassing ATC instructions that modify an arrival or discontinue/resume the aircraft's lateral or vertical navigation on an arrival.	Medium
Conduct Arrival Procedures	Can explain reasons other than visibility that a go around may suddenly be required			Medium
Conduct Arrival Procedures	Can explain the characteristics of a pilot braking action report			Medium
Conduct Arrival Procedures	Can explain items to consider when a pilot braking action report is reliable			Medium

Conduct Before Takeoff Checks			Can manage the risk of errors when assigned an RNAV DP and subsequently receives a change of runway, procedure or transition by verifying the appropriate changes are entered and available for navigation prior to takeoff.	Medium
Conduct Before Takeoff Checks	Can explain the purpose of checking each item during before takeoff checks			Medium
Conduct Before Takeoff Checks	Can describe how to detect malfunctions			Medium
Conduct Before Takeoff Checks	Can ensure the aircraft is in safe operating condition			Medium
Conduct Before Takeoff Checks	Can explain deicing and anti-icing procedures			Medium
Conduct Before Takeoff Checks	Can describe how to conduct a proper pre-takeoff contamination check			Medium
Conduct Before Takeoff Checks	Can describe how adverse weather conditions effect takeoff performance (e.g., snow, ice, gusting			Medium

	crosswinds, low-visibility)			
Conduct Before Takeoff Checks	Can give a before takeoff briefing			Medium
Conduct Before Takeoff Checks		Can determine the airplane’s takeoff performance for actual conditions and planned departure runway		Medium
Conduct Before Takeoff Checks		Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		Medium
Conduct Before Takeoff Checks		Can confirm all systems checked are within an acceptable operating range and are safe for the proposed flight		Medium
Conduct Before Takeoff Checks		Can explain any system operating characteristic or limitation and any corrective action for a malfunction during the checks		Medium
Conduct Before Takeoff Checks		Can determine airspeeds/V-speeds and set flight instruments appropriately		Medium
Conduct Before Takeoff Checks		Can use flight director and autopilot controls for the current flight conditions and takeoff and departure clearances		Medium

Conduct Before Takeoff Checks		Can perform configuration of navigation equipment for takeoff and departure clearances		Medium
Conduct Before Takeoff Checks		Can configure communication equipment for takeoff and departure clearances		Medium
Conduct Before Takeoff Checks		Can obtain and correctly interpret the takeoff and departure clearance		Medium
Conduct Before Takeoff Checks		Can conduct a briefing that includes procedures for emergency and abnormal situations (e.g., powerplant failure, windshear), which may be encountered during takeoff, and state the planned action if they were to occur		Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing division of attention while conducting before takeoff checks	Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing an unexpected	Medium

			change in the runway to be used for departure	
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to verify performance data is correct and airspeeds and flight instruments are set for actual conditions and the departure runway	Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to set navigation and communication equipment for departure	Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to configure autopilot and flight director controls for departure	Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to account for adverse weather conditions prior	Medium

			to takeoff (e.g., snow, ice, gusting crosswinds, low-visibility)	
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing A powerplant failure during takeoff or other malfunction considering operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions	Medium
Conduct Before Takeoff Checks			Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	Medium
Conduct Departure Procedures	Can explain takeoff minimums			Medium
Conduct Departure Procedures	Can explain obstacle Departure Procedure (ODP), including Visual Climb over the Airport (VCOA) and Diverse Vector Area (Radar Vectors)			Medium
Conduct Departure Procedures	Can explain Standard			Medium

	Instrument Departures (SID), including RNAV departure			
Conduct Departure Procedures	Can explain required climb gradients			Medium
Conduct Departure Procedures	Can explain U.S. Terminal Procedures Publications and En Route Charts			Medium
Conduct Departure Procedures	Can explain proper use of a Flight Management System (FMS) to follow a DP			Medium
Conduct Departure Procedures	Can explain pilot/controller responsibilities, communication procedures, and ATC services available to pilots			Medium
Conduct Departure Procedures	Can explain two-way radio communication failure procedures after takeoff			Medium
Conduct Departure Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)			Medium
Conduct Departure Procedures	Can explain communication failure procedures			Medium

Conduct Departure Procedures		Can select the appropriate instrument departure procedure.		Medium
Conduct Departure Procedures		Can select, identify and use the appropriate communication facilities associated with the procedure		Medium
Conduct Departure Procedures		Can select, identify and use the appropriate navigation facilities associated with the procedure		Medium
Conduct Departure Procedures		Can perform programming the FMS prior to departure and execute avionics setup of flight director and autopilot controls for the departure		Medium
Conduct Departure Procedures		Can use current and appropriate navigation publications or databases for the proposed flight		Medium
Conduct Departure Procedures		Can initiate two-way communications with the proper controlling agency		Medium
Conduct Departure Procedures		Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		Medium

Conduct Departure Procedures		Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		Medium
Conduct Departure Procedures		Can comply with all applicable charted procedures		Medium
Conduct Departure Procedures		Can maintain the appropriate airspeed ±10 knots, headings ±10°, and altitude ±100 feet, and accurately track a course, radial, or bearing		Medium
Conduct Departure Procedures		Can execute the departure phase to a point where the transition to the en route environment is complete		Medium
Conduct Departure Procedures			Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures and required climb gradients	Medium
Conduct Departure Procedures			Can identify, assess, and manage risks, encompassing limitations of air traffic avoidance equipment and use of see and	Medium

			avoid techniques	
Conduct Departure Procedures			Can identify, assess, and manage risks, encompassing improper automation management	Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can respond appropriately to engine failure prior to or during an approach.		Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain flight characteristics and controllability associated with maneuvering to a landing with inoperative powerplant(s).			Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain go-around/rejected landing procedures with a powerplant failure.			Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain how to determine a suitable airport.			Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can recognize and correctly identify powerplant failure, execute memory items, and maintain positive airplane control.		Low

Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can coordinate with crew, if applicable, and complete the appropriate emergency procedures and checklist(s) for simulated propeller feathering or simulated powerplant shutdown.		Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can maintain the operating powerplant(s) within acceptable operating limits.		Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can perform communication with ATC and the evaluator, as appropriate for the situation.		Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		Low

Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can perform establishing the recommended approach and landing configuration and airspeed, ±5 knots, and adjust pitch attitude and power as required to maintain a stabilized approach.		Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can maintain directional control and appropriate crosswind correction throughout the approach and landing.		Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can perform smooth, timely, and correct control application before, during, and after touchdown.		Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		Low
Conduct Emergency Procedure - Approach and		Can maintain positive aircraft control throughout the landing using drag and braking		Low

Landing with a Powerplant Failure		devices, as appropriate, to come to a stop.		
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can coordinate with crew and execute after landing checklists(s).		Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure			Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure inflight or during an approach.	Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure			Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure			Can identify, assess, and manage risks, encompassing improper airplane configuration.	Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure			Can identify, assess, and manage risks, encompassing low altitude maneuvering	Low

			including stall, spin, or CFIT.	
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure			Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Low
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure			Can identify, assess, and manage risks, encompassing performing a go-around/rejected landing with a powerplant failure.	Low
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can explain declaring an emergency and selection of a suitable airport or landing location			Low
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can coordinate with crew and execute the appropriate checklist(s) in a timely manner		Low
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup		Can perform communication with ATC and the evaluator, as appropriate for the situation.		Low

instrumentation, or partial panel				
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel			Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	Low
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel			Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	Low
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel			Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	Low
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel			Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Low
Conduct Emergency Procedure - Powerplant Failure		Can execute continued takeoff following failures including engine failure after V1,		Low

During Takeoff at V_1		and any critical failures for the aircraft type that could lead to lateral asymmetry during the takeoff;		
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can explain the procedures used during a powerplant failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required.			Low
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can explain operational considerations to include: airplane performance, takeoff warning systems, runway length, surface conditions, density altitude, wake turbulence, environmental conditions, obstructions			Low
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can execute continued takeoff if the powerplant failure occurs at a point where the airplane can continue to a specified airspeed and altitude at the end of the runway commensurate with the airplane's performance capabilities and		Low

		operating limitations		
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can maintain the desired airspeed, ±5 knots after establishing a climb, and use flight controls in the proper combination as recommended by the manufacturer, to maintain best performance and trim		Low
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		Low
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can maintain the appropriate heading, ±5°, when powerplant failure occurs		Low
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can coordinate with crew and execute the appropriate checklist(s) following the powerplant failure.		Low
Conduct Emergency Procedure - Powerplant Failure		Can perform communication with ATC and the evaluator, as		Low

During Takeoff at V_1		appropriate for the situation.		
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1			Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure during takeoff considering operational factors such as takeoff warning inhibit systems, runway/takeoff path length, surface conditions, environment, obstructions, and LAHSO operations.	Low
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1			Can identify, assess, and manage risks, encompassing failure to brief the plan for a powerplant failure during takeoff, in a crew environment.	Low
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1			Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	Low

Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1			Can identify, assess, and manage risks, encompassing failure to correctly identify the inoperative engine (AMEL, AMES).	Low
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1			Can identify, assess, and manage risks, encompassing inability to climb or maintain altitude with an inoperative powerplant (AMEL, AMES).	Low
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1			Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	Low
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1			Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Low
Conduct Emergency Procedure - Powerplant Failure			Can identify, assess, and manage risks, encompassing distractions,	Low

During Takeoff at V_1			loss of situational awareness, or improper task management.	
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can execute continued takeoff following failures including engine failure after V1, and any critical failures for the aircraft type that could lead to lateral asymmetry during the takeoff;		Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can explain the procedures used during a powerplant failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required.			Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can explain operational considerations to include: airplane performance, takeoff warning systems, runway length, surface conditions, density altitude, wake turbulence, environmental conditions, obstructions			Low

Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can execute continued takeoff if the powerplant failure occurs at a point where the airplane can continue to a specified airspeed and altitude at the end of the runway commensurate with the airplane's performance capabilities and operating limitations		Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can maintain the desired airspeed, ±5 knots after establishing a climb, and use flight controls in the proper combination as recommended by the manufacturer, to maintain best performance and trim		Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can maintain the appropriate heading, ±5°, when powerplant failure occurs		Low

Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can coordinate with crew and execute the appropriate checklist(s) following the powerplant failure.		Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can perform communication with ATC and the evaluator, as appropriate for the situation.		Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment			Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure during takeoff considering operational factors such as takeoff warning inhibit systems, runway/takeoff path length, surface conditions, environment, obstructions, and LAHSO operations.	Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment			Can identify, assess, and manage risks, encompassing failure to brief the plan for a powerplant failure during takeoff, in a	Low

			crew environment.	
Conduct Emergency Procedure - Powerplant Failure During Second Segment			Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment			Can identify, assess, and manage risks, encompassing failure to correctly identify the inoperative engine (AMEL, AMES).	Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment			Can identify, assess, and manage risks, encompassing inability to climb or maintain altitude with an inoperative powerplant (AMEL, AMES).	Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment			Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	Low

Conduct Emergency Procedure - Powerplant Failure During Second Segment			Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Low
Conduct Emergency Procedure - Powerplant Failure During Second Segment			Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain flight characteristics and controllability associated with maneuvering to a landing with inoperative powerplant(s).			Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain missed approach considerations with a powerplant failure.			Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain how to determine a suitable airport.			Low
Conduct Emergency Procedure - Precision Approach with Powerplant		Can recognize and correctly identify powerplant failure, execute memory items, and maintain		Low

Failure (manual control)		positive airplane control.		
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can coordinate with crew, if applicable, and complete the appropriate emergency procedures and checklist(s) for simulated propeller feathering or simulated powerplant shutdown.		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can maintain the operating powerplant(s) within acceptable operating limits.		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can perform radio calls as appropriate		Low
Conduct Emergency Procedure - Precision Approach with Powerplant		Can assess and proceed toward the nearest suitable airport.		Low

Failure (manual control)				
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can coordinate with crew and execute the approach and landing checklists(s).		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		Low

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can maintain a stabilized approach, adjusting pitch and power as required, allowing no more than ¼-scale deflection of either the vertical or lateral guidance indications.		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can maintain a stabilized final approach from the FAF to the DA/DH allowing no more than ¼- scale deflection of either the vertical or lateral guidance indications and maintain the desired airspeed ±5 knots.		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can maintain directional control and appropriate crosswind correction throughout the approach and landing or missed approach.		Low

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can immediately execute the missed approach procedure if the required visual references for the runway are not distinctly visible and identifiable upon reaching the DA/DH,		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can execute a transition to a normal landing approach when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering upon reaching the DA/DH		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can perform smooth, timely, and correct control application before, during, and after touchdown or during the missed approach.		Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)			Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure inflight or during an approach.	Low

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)			Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)			Can identify, assess, and manage risks, encompassing improper airplane configuration.	Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)			Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)			Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)			Can identify, assess, and manage risks, encompassing landing with a powerplant failure.	Low

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)			Can identify, assess, and manage risks, encompassing missed approach with a powerplant failure.	Low
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)			Can identify, assess, and manage risks, encompassing maneuvering in IMC with a powerplant failure.	Low
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system		Can execute use of LNAV mode(s).		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area		Can execute use of VNAV mode(s).		Medium

augmentation system				
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system		Can apply ATC procedures/phraseology		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system		Can apply functionality of vector to final mode		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of		Can perform the use of navigation systems including procedure selection and ILS look-alike principle:		Medium

minima using the wide area augmentation system				
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system		Can perform flying of a procedure		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system		Can perform setup and interpretation of electronic displays and symbols.		Medium
Conduct Holding	Can explain elements related to holding procedures, including reporting criteria, appropriate speeds, and recommended entry procedures for standard,			Medium

	nonstandard, published, and non- published holding patterns.			
Conduct Holding	Can explain determining holding endurance based upon factors to include an expect further clearance (EFC) time, fuel on board, fuel flow while holding, fuel required to destination and alternate, etc., as appropriate.			Medium
Conduct Holding	Can explain when to declare minimum fuel or a fuel-related emergency.			Medium
Conduct Holding	Can explain use of automation for holding to include autopilot and flight management systems, if equipped.			Medium
Conduct Holding		Can identify instrument navigation aids associated with the assigned hold.		Medium
Conduct Holding		Can apply the appropriate entry procedure for a standard, nonstandard, published, or non-published holding pattern.		Medium

Conduct Holding		Can change to the appropriate holding airspeed for the airplane and holding altitude to cross the holding fix at or below maximum holding airspeed		Medium
Conduct Holding		Can comply with the holding pattern leg length and other restrictions, if applicable, associated with the holding pattern.		Medium
Conduct Holding		Can comply with ATC reporting requirements.		Medium
Conduct Holding		Can use proper wind correction procedures to maintain the desired pattern and to arrive over the fix as close as possible to a specified time.		Medium
Conduct Holding		Can maintain the airspeed ±10 knots, altitude ±100 feet, headings ±10°, and accurately track a selected course, radial, or bearing.		Medium
Conduct Holding		Can use automation to include autopilot, flight director controls, and navigation displays associated with the assigned hold.		Medium
Conduct Holding		Can calculate fuel reserve calculations		Medium

		based on EFC times.		
Conduct Holding			Can identify, assess, and manage risks, encompassing recalculating fuel reserves if assigned an unanticipated EFC time.	Medium
Conduct Holding			Can identify, assess, and manage risks, encompassing scenarios and circumstances that could result in minimum fuel or the need to declare an emergency.	Medium
Conduct Holding			Can describe scenarios that could lead to holding, including deteriorating weather at the planned destination.	Medium
Conduct Holding			Can identify, assess, and manage risks, encompassing improper holding entry and improper wind correction while holding.	Medium
Conduct Holding			Can identify, assess, and manage risks, encompassing holding while	Medium

			in icing conditions.	
Conduct Holding			Can identify, assess, and manage risks, encompassing improper automation management.	Medium
Conduct Instrument Takeoff	Can describe procedures during takeoff to address the transition from visual flight to instrument flight for both the pilot flying (PF) and pilot monitoring (PM), to include the use and limitations of any flight guidance or visual systems in use. Pilots should be aware of the operator's policy for responding to loss of suitable visual reference during takeoff, in the low and high-speed regimes, both before and after V1 (refer to AC 120-62 for additional information and recommendations for training).			Medium
Conduct Instrument Takeoff		Can perform applicable procedures during takeoff to address the transition from		Medium

		visual flight to instrument flight for both the pilot flying (PF) and pilot monitoring (PM), to include the use and limitations of any flight guidance or visual systems in use.		
Conduct Instrument Takeoff			Can demonstrate familiarization with operator's policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as directional control or stopping performance is concerned, and flight crews should be familiar with appropriate constraints related to braking reports and the obscuration of appropriate lighting or	Medium

			markings. Refer to AC 91-79 for detailed information on runway contaminants and condition reporting.	
Conduct Instrument Takeoff		Can execute normal takeoff at lowest applicable minima;		Medium
Conduct Instrument Takeoff		Can perform takeoff with failure of the flight guidance device or ground-based guidance system, at a critical point of the takeoff, unless these systems have failure characteristics that are extremely improbable.		Medium
Conduct Instrument Takeoff	Can explain operational factors that could affect an instrument takeoff (airports available in the event of an emergency after takeoff).			Medium
Conduct Instrument Takeoff		Can coordinate with crew and execute the appropriate checklist(s) prior to		Medium

		takeoff in a timely manner		
Conduct Instrument Takeoff		Can execute setting of the applicable avionics and flight instruments prior to initiating the takeoff		Medium
Conduct Instrument Takeoff		Can perform radio calls as appropriate		Medium
Conduct Instrument Takeoff		Can verify assigned/correct runway		Medium
Conduct Instrument Takeoff		Can perform clearing the arrival area and execute taxiing into takeoff position and align the airplane on the runway centerline		Medium
Conduct Instrument Takeoff		Can maintain centerline and proper flight control inputs during the takeoff roll		Medium
Conduct Instrument Takeoff		can confirm takeoff power and proper engine and flight instrument indications prior to rotation making callouts, as appropriate, for the airplane or per the operator’s procedures		Medium
Conduct Instrument Takeoff		Can rotates and lift off at the recommended airspeed, establish the desired pitch attitude, and accelerate to the		Medium

		desired airspeed/ V-speed.		
Conduct Instrument Takeoff		Can execute a smooth transition from visual meteorological conditions (VMC) to actual or simulated instrument meteorological conditions (IMC).		Medium
Conduct Instrument Takeoff		Can maintain desired heading ±5° and desired airspeeds ±5 knots.		Medium
Conduct Instrument Takeoff		Can comply with ATC clearances and instructions issued by ATC, as appropriate		Medium
Conduct Instrument Takeoff		Can execute appropriate after-takeoff checklist(s) in a timely manner		Medium
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing selection of a runway based on aircraft performance and limitations, available distance, surface conditions, lighting, and wind	Medium
Conduct Instrument Takeoff			Can identify, assess, and manage risks,	Medium

			encompassing wake turbulence	
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for rejected takeoff	Medium
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for Engine failure in takeoff phase of flight with the ceiling or visibility below the minimums for an instrument approach at departure airport	Medium
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for Engine failure in climb phase of flight with the ceiling or visibility below the minimums	Medium

			for an instrument approach at departure airport	
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife	Medium
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for low altitude maneuvering including stall, spin, or CFIT	Medium
Conduct Instrument Takeoff			Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for distractions, loss of situational	Medium

			awareness, or improper task management.	
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status			Medium
Conduct Interior and exterior preflight			Can identify, assess, and manage risks encompassing Inoperative equipment discovered prior to flight.	Medium
Conduct Interior and exterior preflight			Can identify, assess, and manage risks encompassing external pressures and Aviation security concerns.	Medium
Conduct Landing from a Precision Approach	Can recognize significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH.			Medium
Conduct Landing from a Precision Approach		Can perform proper reaction to significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA,		Medium

		DA/DH, or AH. Expected pilot response to failure after touchdown should be addressed as well.		
Conduct Landing from a Precision Approach	Can recognize ground or navigation system faults, failures or abnormalities at any point during the approach and landing.			Medium
Conduct Landing from a Precision Approach		Can recognize and execute appropriate actions in response to ground or navigation system faults, failures or abnormalities at any point during the approach and landing.		Medium
Conduct Landing from a Precision Approach			Can appreciate that pilots should be familiar with the need to report navigation system anomalies or discrepancies, failures of any lighting system (e.g., approach lights, runway lights, touchdown zone (TDZ) lights, centerline lights), or any other	Medium

			discrepancies that could be pertinent to operations.	
Conduct Landing from a Precision Approach			Can demonstrate familiarization with operator’s policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as directional control or stopping performance is concerned, and flight crews should be familiar with appropriate constraints related to braking reports and the obscuration of appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway	Medium

			contaminants and condition reporting.	
Conduct Landing from a Precision Approach	Can explain elements related to the pilot's responsibilities, and the environmental, operational, and meteorological factors that affect landing from a precision approach.			Medium
Conduct Landing from a Precision Approach	Can explain approach lighting systems and runway and taxiway signs, markings and lighting.			Medium
Conduct Landing from a Precision Approach		Can maintain the desired airspeed, ±5 knots, and vertical and lateral guidance within ¼-scale deflection of the indicators during the descent from DA/DH to a point where visual maneuvering is used to accomplish a normal landing.		Medium

Conduct Landing from a Precision Approach		Can comply with all ATC advisories, such as NOTAMs, windshear, wake turbulence, runway surface, braking conditions, and other operational considerations.		Medium
Conduct Landing from a Precision Approach		Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		Medium
Conduct Landing from a Precision Approach		Can maintain positive airplane control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		Medium
Conduct Landing from a Precision Approach		Can demonstrate SRM or CRM, as appropriate.		Medium
Conduct Landing from a Precision Approach		Can apply runway incursion avoidance procedures.		Medium
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing selection of an approach procedure and runway based	Medium

			on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing wake turbulence.	Medium
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for missed approach	Medium
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for land and hold short operations (LAHSO)	Medium
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Medium

Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for distractions, loss of situational awareness, or improper task management.	Medium
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for attempting to land from an unstable approach.	Medium
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for flying below the glidepath.	Medium
Conduct Landing from a Precision Approach			Can identify, assess, and manage risks, encompassing planning for transitioning from instrument to visual	Medium

			references for landing.	
Conduct Missed Approach	Can explain that when executing a missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure			Medium
Conduct Missed Approach		Can execute a missed approach from the MDA, DA/DH, or AH.		Medium
Conduct Missed Approach		Can execute a missed approach from a low altitude that could result in a touchdown during go-around (balked or rejected landing).		Medium

Conduct Missed Approach	Can explain elements related to missed approach procedures to include reference to standby or backup instruments.			Medium
Conduct Missed Approach	Can explain limitations associated with standard instrument approaches, including while using an FMS or autopilot, if equipped.			Medium
Conduct Missed Approach		Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		Medium
Conduct Missed Approach		Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and initiate a positive rate of climb at the appropriate airspeed/V- speed, ±5 knots.		Medium
Conduct Missed Approach		Can coordinate with crew and execute the appropriate procedures and		Medium

		checklist(s) in a timely manner.		
Conduct Missed Approach		Can comply with the published or alternate missed approach procedure.		Medium
Conduct Missed Approach		Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		Medium
Conduct Missed Approach		Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure.		Medium
Conduct Missed Approach		Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		Medium
Conduct Missed Approach		Can demonstrate effective CRM		Medium
Conduct Missed Approach		Can execute re-engagement of the autopilot at appropriate times during the missed approach procedure.		Medium
Conduct Missed Approach		Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix,		Medium

		or other clearance limit, as appropriate, or as directed by the evaluator.		
Conduct Missed Approach			Can identify, assess, and manage risks, encompassing failure to follow prescribed procedures.	Medium
Conduct Missed Approach			Can identify, assess, and manage risks, encompassing holding, diverting, or electing to fly the approach again.	Medium
Conduct Missed Approach			Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	Medium
Conduct Missed Approach			Can identify, assess, and manage risks, encompassing factors that might lead to executing a missed approach procedure before the MAP	Medium

			or to a go-around below DA/MDA.	
Conduct Missed Approach			Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	Medium
Conduct Nonprecision Approach	Can explain that unstabilized approaches are a key contributor to CFIT events, and explain that present NPAs are designed with and without stepdown fixes in the final approach			Medium
Conduct Nonprecision Approach	Can explain why stepdowns flown without a constant descent will require multiple thrust, pitch, and altitude adjustments inside the final approach fix (FAF), and can explain that these adjustments increase pilot workload and potential errors during a critical phase of flight.			Medium

Conduct Nonprecision Approach	Can explain that the practice commonly referred to as “dive and drive,” can result in extended level flight as low as 250 feet above the ground in instrument meteorological conditions (IMC) and shallow or steep final approaches.			Medium
Conduct Nonprecision Approach	Can explain that a stabilized approach is a key feature to a safe approach and landing. Can explain that operators are encouraged by the FAA and the International Civil Aviation Organization (ICAO) to use the stabilized approach concept to help eliminate CFIT.			Medium
Conduct Nonprecision Approach	Can explain that the stabilized approach concept is characterized by maintaining a stable approach speed, descent rate, vertical flightpath, and configuration to			Medium

	the landing touchdown point			
Conduct Nonprecision Approach	Can explain that precision IAPs and approach procedures with vertical guidance (APV) have a continuous descent approach profile in their design.			Medium
Conduct Nonprecision Approach	Can explain that NPAs were not originally designed with this vertical path, but may easily be flown using the CDFA (continuous descent final approach) technique.			Medium
Conduct Nonprecision Approach	Can explain why Flying NPAs with a continuous descent profile will provide a safety advantage over flying approaches using the “dive and drive” technique.			Medium
Conduct Nonprecision Approach	Can explain that CDFA is a technique for flying the final approach segment of an NPA as a continuous descent. The technique is consistent with stabilized			Medium

	approach procedures and has no level-off.			
Conduct Nonprecision Approach	Can explain the six advantages of CDFA: Increased safety by employing the concepts of stabilized approach criteria and procedure standardization; Improved pilot situational awareness (SA) and reduced pilot workload; Improved fuel efficiency by minimizing the low-altitude level flight time; Reduced noise level by minimizing the level flight time at high thrust settings; Procedural similarities to APV and precision approach operations; Reduced probability of infringement on required obstacle clearance during the final approach segment.			Medium

Conduct Nonprecision Approach	Can explain that CDFA requires no specific aircraft equipment other than that specified by the title of the NPA procedure and that Pilots can safely fly suitable NPAs with CDFA using basic piloting techniques, aircraft flight management systems (FMS) and RNAV systems, or by manually computing rate of descent.			Medium
Conduct Nonprecision Approach	Can calculate a rate of descent for VDA (see example in this paragraph)			Medium
Conduct Nonprecision Approach	Can explain that some approach characteristics (e.g., circling-only minima) and environmental factors (e.g., icing) could make the use of CDFA inadvisable.			Medium
Conduct Nonprecision Approach			Can appreciate that there are environments in which using CDFA technique is not advisable or practical, for example airports that do not offer	Medium

			straight in non-precision approaches.	
Conduct Nonprecision Approach	Can explain procedures and limitations associated with a nonprecision approach, including the differences between Localizer Performance (LP) and Lateral Navigation (LNAV) approach guidance			Medium
Conduct Nonprecision Approach	Can explain navigation system displays and annunciations, modes of operation, and RNP lateral accuracy values associated with an RNAV (GPS) approach.			Medium
Conduct Nonprecision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).			Medium
Conduct Nonprecision Approach	Can explain criteria for a stabilized			Medium

	approach, to include energy management concepts.			
Conduct Nonprecision Approach		Can perform the nonprecision instrument approaches selected by the instructor/evaluator		Medium
Conduct Nonprecision Approach		Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		Medium
Conduct Nonprecision Approach		Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		Medium
Conduct Nonprecision Approach		Can Comply with all clearances issued by ATC.		Medium
Conduct Nonprecision Approach		Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		Medium
Conduct Nonprecision Approach		Can coordinate with ATC if unable to comply with a clearance.		Medium

Conduct Nonprecision Approach		Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		Medium
Conduct Nonprecision Approach		Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		Medium
Conduct Nonprecision Approach		Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		Medium
Conduct Nonprecision Approach		Can maintain a stabilized descent to the appropriate altitude.		Medium
Conduct Nonprecision Approach		Can maintain no more than ¼ scale CDI deflection, airspeed ±5 knots of selected value, and altitude above MDA +50/-0 feet		Medium

		(to the VDP or MAP) during the final approach segment		
Conduct Nonprecision Approach		Can execute the missed approach procedure if the required visual references are not distinctly visible and identifiable at the appropriate point or altitude for the approach profile, or execute a normal landing from a straight-in or circling approach.		Medium
Conduct Nonprecision Approach		Can use a Multi-Function Display (MFD) and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		Medium
Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing Failure to follow the correct approach procedure (e.g., descending too early, etc.).	Medium
Conduct Nonprecision Approach			Can identify, assess, and manage risks,	Medium

			encompassing Selecting an incorrect navigation frequency.	
Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing Failure to manage automated navigation and auto flight systems.	Medium
Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing Failure to ensure proper airplane configuration during an approach and missed approach.	Medium
Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing an unstable approach, including excessive descent rates.	Medium
Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing Deteriorating weather conditions on approach.	Medium

Conduct Nonprecision Approach			Can identify, assess, and manage risks, encompassing Operating below the minimum descent altitude (MDA) or continuing a descent below decision altitude (DA) without proper visual references.	Medium
Conduct Normal Approach and Landing		Can execute normal landings at the lowest applicable minima for each authorized flight guidance and/or visual system.		Medium
Conduct Normal Approach and Landing		Can perform manual rollout in low visibility at applicable minima. (except for aircraft using an automatic fail operational (FO) rollout system)		Medium
Conduct Normal Approach and Landing		Can perform landings at the limiting environmental conditions authorized for that operator with respect to wind, crosswind components, and runway surface		Medium

		friction characteristics		
Conduct Normal Approach and Landing	Can explain stabilized approach, to include energy management concepts.			Medium
Conduct Normal Approach and Landing	Can explain effects of atmospheric conditions, including wind, on approach and landing performance.			Medium
Conduct Normal Approach and Landing	Can explain wind correction techniques on approach and landing.			Medium
Conduct Normal Approach and Landing	Can identify airport and runway markings, signs, and lights			Medium
Conduct Normal Approach and Landing		Can coordinate with crew and execute after landing checklists(s).		Medium
Conduct Normal Approach and Landing		Can perform radio calls as appropriate		Medium
Conduct Normal Approach and Landing		Can maintain a ground track that ensures the desired traffic pattern will be flown taking into consideration obstructions and ATC		Medium

Conduct Normal Approach and Landing		Can confirm the airplane is aligned with the correct/assigned runway or landing surface.		Medium
Conduct Normal Approach and Landing		Can scan runway or landing surface and adjoining area for traffic and obstructions.		Medium
Conduct Normal Approach and Landing		Can select a suitable touchdown point considering wind, landing surface, and obstructions.		Medium
Conduct Normal Approach and Landing		Can perform establishing the recommended approach and landing configuration and airspeed, ±5 knots, and adjust pitch attitude and power as required to maintain a stabilized approach.		Medium
Conduct Normal Approach and Landing		Can maintain directional control and appropriate crosswind correction throughout the approach and landing.		Medium
Conduct Normal Approach and Landing		Can perform smooth, timely, and correct control application before, during, and after touchdown.		Medium

Conduct Normal Approach and Landing		Can execute touch down with the runway centerline between the main landing gear at the appropriate speed and pitch attitude at the runway aiming point markings -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		Medium
Conduct Normal Approach and Landing		Can execute deceleration to taxi speed (20 knots or less on dry pavement, 10 knots or less on contaminated pavement) to within the calculated landing distance plus 25% for the actual conditions with the runway centerline between the main landing gear		Medium
Conduct Normal Approach and Landing		Can execute a timely go-around if the approach cannot be made within the tolerances specified above or for any other condition that may result in an unsafe approach or landing.		Medium

Conduct Normal Approach and Landing		Can apply runway incursion avoidance procedures.		Medium
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing selection of a runway or approach path and touchdown area-based aircraft limitations, available distance, surface conditions, and wind.	Medium
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing wake turbulence.	Medium
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing Go-Around/Rejected Landing	Medium
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing land and Hold Short Operations (LAHSO)	Medium
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing	Medium

			collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Normal Approach and Landing			Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, incorrect airport surface approach and landing, or improper task management.	Medium
Conduct Normal Takeoff and Climb		Can perform takeoff in limiting crosswinds, winds, gusts, and runway surface friction to levels authorized. Training should be done at weights or on runways that represent a critical field length		Medium
Conduct Normal Takeoff and Climb	Can describe the effects of atmospheric			Medium

	conditions, including wind, on takeoff and climb performance			
Conduct Normal Takeoff and Climb	Can describe the appropriate V-speeds for takeoff and climb			Medium
Conduct Normal Takeoff and Climb	Can describe the appropriate aircraft configuration and power setting for takeoff and climb			Medium
Conduct Normal Takeoff and Climb	Can identify airport and runway markings, signs, and lights			Medium
Conduct Normal Takeoff and Climb		Can coordinate with crew and complete the appropriate checklist(s) prior to takeoff in a timely manner		Medium
Conduct Normal Takeoff and Climb		Can perform radio calls as appropriate		Medium
Conduct Normal Takeoff and Climb		Can verify assigned/correct runway		Medium
Conduct Normal Takeoff and Climb		Can verify the airplane is configured for takeoff		Medium
Conduct Normal Takeoff and Climb		Can execute clearing of the area and taxi into takeoff position and align the airplane on the runway centerline		Medium
Conduct Normal Takeoff and Climb		Can maintain centerline and proper flight control inputs		Medium

		during the takeoff roll		
Conduct Normal Takeoff and Climb		Can confirm takeoff power and proper engine and flight instrument indications prior to rotation and perform callouts as appropriate, for the airplane or per the operator’s procedures		Medium
Conduct Normal Takeoff and Climb		Can perform rotation and lift off at the recommended airspeed		Medium
Conduct Normal Takeoff and Climb		Can maintain a power setting and a pitch attitude to maintain the desired climb airspeed/V-speed, ±5 knots for each climb segment		Medium
Conduct Normal Takeoff and Climb		Can maintain desired heading ±5°		Medium
Conduct Normal Takeoff and Climb		Can perform Retraction of the landing gear and flaps in accordance with manufacturer or operator procedures and limitations, as appropriate		Medium
Conduct Normal Takeoff and Climb		Can perform wake turbulence avoidance		Medium
Conduct Normal Takeoff and Climb		Can follow noise abatement procedures		Medium

Conduct Normal Takeoff and Climb		Can execute appropriate after-takeoff checklist(s) in a timely manner		Medium
Conduct Normal Takeoff and Climb			Can identify, assess, and manage risks, encompassing selection of a runway, or runway intersection aircraft limitations, available distance, surface conditions, and wind	Medium
Conduct Normal Takeoff and Climb			Can identify, assess, and manage risks, encompassing wake turbulence	Medium
Conduct Normal Takeoff and Climb			Can demonstrate proper planning for rejected takeoff	Medium
Conduct Normal Takeoff and Climb			Can demonstrate proper planning for engine failure in takeoff phase of flight	Medium
Conduct Normal Takeoff and Climb			Can demonstrate proper planning for engine failure in climb phase of flight	Medium

Conduct Normal Takeoff and Climb			Can identify, assess, and manage risks, encompassing improper aircraft configuration or settings (e.g., trim, flaps, autobrakes, etc.)	Medium
Conduct Normal Takeoff and Climb			Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife	Medium
Conduct Normal Takeoff and Climb			Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can execute procedure with smoothness and accuracy		Low
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can operate the airplane within its limitations		Low
Conduct PFD malfunction		Can maintain control of the airplane at all times		Low

procedure (AGM 1 or DU1)		in such a manner that the successful outcome of the procedure is never in doubt		
Conduct PFD malfunction procedure (AGM 1 or DU1)			Can apply aeronautical knowledge to execution of the task	Low
Conduct PFD malfunction procedure (AGM 1 or DU1)			Can apply crew coordination	Low
Conduct PFD malfunction procedure (AGM 1 or DU1)			Can conduct effective communication with the other crew members	Low
Conduct PFD malfunction procedure (AGM 1 or DU1)			Can manage crew cooperation	Low
Conduct PFD malfunction procedure (AGM 1 or DU1)			Can maintain a general survey of the aircraft operation by appropriate supervision	Low
Conduct PFD malfunction procedure (AGM 1 or DU1)			Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	Low
Conduct PFD malfunction procedure (AGM 1 or DU1)			Can demonstrate good judgement and airmanship	Low

Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations without APU			Medium
Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations with APU			Medium
Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations without APU			Medium
Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations with APU			Medium
Conduct Powerplant Start	Can explain procedures for starting engines under various conditions			Medium
Conduct Powerplant Start	Can explain possible malfunctions during powerplant start, procedures to address the malfunction, and any associated limitations			Medium
Conduct Powerplant Start	Can describe coordinating and communicating with ground personnel for powerplant start, if applicable			Medium

Conduct Powerplant Start		Can ensure the ground safety procedures are followed during the before-start, start, and after- start phase		Medium
Conduct Powerplant Start		Can coordinate with crew and complete the appropriate checklist(s) prior to and after powerplant start.		Medium
Conduct Powerplant Start		Can identify an abnormal start or malfunction and execute the correct procedure		Medium
Conduct Powerplant Start			Can identify, assess, and manage risks encompassing malfunctions during powerplant start	Medium
Conduct Powerplant Start			Can identify, assess, and manage risks encompassing turbine powerplant safety	Medium
Conduct Powerplant Start			Can identify, assess, and manage risks encompassing managing situations where specific instructions or checklist items are not published	Medium

Conduct Powerplant Start			Can identify, assess, and manage risks encompassing personnel, vehicles, vessels, foreign object debris, and other aircraft in the vicinity during powerplant start	Medium
Conduct Precision Approach	Can describe normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures			Medium
Conduct Precision Approach		Can perform appropriate normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal		Medium

		operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures		
Conduct Precision Approach	Can describe procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.			Medium
Conduct Precision Approach		Can perform procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.		Medium
Conduct Precision Approach	Can recognize the limits of acceptable aircraft position and flightpath tracking			Medium

	during approach, flare and rollout. This should be addressed using appropriate displays or annunciations for either automatic or manual landing systems.			
Conduct Precision Approach			Can appreciate constraints for head winds, tail winds, crosswinds, and the effect of vertical and horizontal wind shear on automatic systems, flight directors (F/D), or other system (e.g., HUD, SVGS, etc.) performance. For systems such as HUDs that have a limited field of view (FOV), or synthetic reference systems, pilots should be familiar with the display limitations of these systems and expected pilot actions in the event that the aircraft reaches or exceeds a	Medium

			display limit capability.	
Conduct Precision Approach		Can execute types of instrument procedures approved for the air carrier (standard and special, lowest straight-in, or circling minima, if applicable); according to the operator's manuals, charts and checklists, on the aircraft type, model and series flown.		Medium
Conduct Precision Approach		Can use flight guidance and/or visual system(s) and their corresponding category(s) of minima for each authorized system;		Medium
Conduct Precision Approach		Can use NAVAID(s) and visual aids used (LVO/SMGCS lighting if applicable);		Medium
Conduct Precision Approach		Can apply Flightcrew procedures used (e.g., PF/PM duties, monitored		Medium

		approach, or call-outs);		
Conduct Precision Approach			Can demonstrate familiarization with airport and runway characteristics typically experienced;	Medium
Conduct Precision Approach	Can identify nearby critical terrain or obstruction environment;			Medium
Conduct Precision Approach		Can perform relevant normal, non-normal, and environmental conditions. Training and evaluation need only be conducted using relevant and representative procedures and conditions (e.g., a representative mix of day, night, dusk, variable/patchy conditions, representative temperatures, landing runway altitudes, precipitation conditions, turbulence, and icing conditions); and		Medium
Conduct Precision Approach		Can respond appropriately to aircraft and ground system failures.		Medium

Conduct Precision Approach	Can explain procedures and limitations associated with a precision approach, including determining required descent rates and adjusting minimums in the case of inoperative equipment.			Medium
Conduct Precision Approach	Can explain navigation system displays, annunciations, and modes of operation.			Medium
Conduct Precision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).			Medium
Conduct Precision Approach	Can explain stabilized approach criteria, to include energy management concepts.			Medium
Conduct Precision Approach		Can perform the precision instrument approaches selected by the instructor/evaluator.		Medium

Conduct Precision Approach		Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		Medium
Conduct Precision Approach		Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		Medium
Conduct Precision Approach		Can comply in a timely manner with all clearances, instructions, and procedures.		Medium
Conduct Precision Approach		Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		Medium
Conduct Precision Approach		Can coordinate with ATC if unable to comply with a clearance.		Medium
Conduct Precision Approach		Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		Medium

Conduct Precision Approach		Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		Medium
Conduct Precision Approach		Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		Medium
Conduct Precision Approach		Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		Medium
Conduct Precision Approach		Can maintain a stabilized final approach from the Final Approach Fix (FAF) to DA/DH allowing no more than ¼-scale deflection of either		Medium

		the vertical or lateral guidance indications and maintain the desired airspeed ±5 knots		
Conduct Precision Approach		Can immediately initiate the missed approach procedures if the required visual references for the runway are not distinctly visible and identifiable upon reaching the DA/DH.		Medium
Conduct Precision Approach		Can, upon reaching the DA/DH, perform a transition to a normal landing when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering		Medium
Conduct Precision Approach		Can use an MFD and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		Medium
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing failure to	Medium

			follow the correct approach procedure (e.g., descending below the glideslope, etc.).	
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing selecting an incorrect navigation frequency.	Medium
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	Medium
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	Medium
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing an unstable approach, including	Medium

			excessive descent rates.	
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing deteriorating weather conditions on approach.	Medium
Conduct Precision Approach			Can identify, assess, and manage risks, encompassing continuing to descend below the Decision Altitude (DA)/Decision Height (DH) when the required visual references are not visible.	Medium
Conduct Rejected Takeoff		Can execute Rejected takeoff from a point prior to V1 (including an engine failure);		Low
Conduct Rejected Takeoff		Can perform rejected takeoff requiring transfer of control (if applicable) for low-visibility takeoff minima where a flight guidance and/or vision system is required		Low
Conduct Rejected Takeoff		Can perform rejected takeoff with failure of the flight guidance		Low

		device or ground-based guidance system, at a critical point of the takeoff, unless these systems have failure characteristics that are extremely improbable.		
Conduct Rejected Takeoff	Can describe safety considerations following a rejected takeoff			Low
Conduct Rejected Takeoff	Can explain the procedure for accomplishing a rejected takeoff			Low
Conduct Rejected Takeoff	Can explain accelerate/stop distance			Low
Conduct Rejected Takeoff	Can describe conditions and situations that could warrant a rejected takeoff (e.g., takeoff warning systems, powerplant failure, other systems warning/failure)			Low
Conduct Rejected Takeoff	Can define relevant V-speeds for a rejected takeoff			Low
Conduct Rejected Takeoff		Can execute aborted takeoff if the powerplant failure occurs at a point during the takeoff where the abort procedure can be initiated and the airplane can be		Low

		safely stopped on the remaining runway		
Conduct Rejected Takeoff		Can execute prompt reduction of power and maintain positive aircraft control using drag and braking devices, as appropriate, to come to a stop		Low
Conduct Rejected Takeoff		Can coordinate with crew, if applicable, and complete the appropriate procedures, checklist(s), and radio calls following a rejected takeoff in a timely manner		Low
Conduct Rejected Takeoff			Can identify, assess, and manage risks, encompassing a powerplant failure or other malfunction during takeoff.	Low
Conduct Rejected Takeoff			Can identify, assess, and manage risks, encompassing failure to maintain directional control following a rejected takeoff	Low
Conduct Rejected Takeoff			Can identify, assess, and manage risks,	Low

			encompassing rejecting takeoff with inadequate stopping distance	
Conduct Rejected Takeoff			Can identify, assess, and manage risks, encompassing a high-speed abort distraction, loss of situational awareness, or improper task management	Low
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can verify currency and integrity of aircraft navigation data		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can obtain a receiver autonomous integrity monitoring (RAIM) prediction for the planned RNP operation		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO		Can verify successful completion of RNP system self-tests;		Medium

standards for RNP operations.				
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform initialization navigation system position		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform retrieval of an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can execute an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform adherence to speed and/or altitude constraints associated with RNP operations		Medium

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can select the appropriate STAR or SID for the active runway in use and be familiar with procedures to deal with a runway change		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can verify waypoints and flight plan programming;		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform a manual or automatic runway update (with takeoff point shift for Inertial Reference Units (IRU) only);		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform flying direct to a waypoint		Medium
Conduct RNP operations in the United States, oceanic and remote continental		Can perform flying a course/track to a waypoint		Medium

airspace, and in foreign countries which adopt ICAO standards for RNP operations.				
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform interception of a course/track		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform flying vectors, and rejoining an RNP route/procedure from the ‘heading’ mode;		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform selecting/arming the navigation system for an ILS or GLS transition		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform insertion and deletion of a route discontinuity;		Medium

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform removal and reselection of a navigation sensor input;		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can confirm exclusion of a specific navigation aid or navigation aid type (distance measuring equipment (DME) and very high frequency omni-directional range (VOR) only);		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can perform changing of the arrival airport and alternate airport		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can verify the RNP value set in the flight management system (FMS) matches the equipment capability and authorizations as annotated in the flight plan		Medium
Conduct RNP operations in the United States, oceanic and remote		Can perform parallel offset function if capability exists		Medium

continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.				
Conduct use of FMS		Can perform use of the automatic throttle, flight management computer, or other speed management system, if applicable.		Medium
Conduct use of FMS			Can manage the risk of errors when receiving a change to assigned routing by ensuring the waypoints sequence depicted by their navigation system matches the route depicted on the appropriate chart(s) and their assigned route	Medium
Conduct use of FMS		Can verify currency of aircraft navigation data.		High
Conduct use of FMS		Can perform flying a course/track to a waypoint.		Medium
Conduct use of FMS		Can perform interception of a course/track		Medium
Conduct use of FMS		Can comply with a vectored off and execute rejoining a procedure.		Medium

Conduct use of FMS		Can determine cross-track error/deviation		Medium
Conduct use of FMS		Can execute insertion and deletion of a route discontinuity		Medium
Conduct use of FMS		Can execute removal and reselection of navigation sensor inputs.		Medium
Conduct use of FMS		Can confirm exclusion of a specific navigation aid or navigation aid type.		Medium
Conduct use of FMS		Can execute insertion and deletion of a lateral offset		Medium
Conduct use of FMS		Can execute a change of the arrival airport and alternate airport		Medium
Conduct use of FMS		Can execute insertion and delete a holding pattern		Medium
Conduct use of FMS		Can verify successful completion of RNAV system self-tests		High
Conduct use of FMS		Can execute initialization of RNAV system position		High
Conduct use of FMS		Can execute retrieval and flying of a DP or STAR with appropriate transition		High
Conduct use of FMS		Can comply with speed and/or altitude constraints		Medium

		associated with a DP or STAR.		
Conduct use of FMS		Can execute making a runway change associated with a DP or STAR		Medium
Conduct use of FMS		Can verify waypoints and flight plan programming		High
Conduct use of FMS		Can perform a manual or automatic runway update (with takeoff point shift, if applicable)		Medium
Conduct use of FMS		Can perform flying direct to a waypoint		Medium
Conduct use of FMS		Can perform a complex SID consisting of multiple altitude and speed constraints		Medium
Conduct use of FMS		Can perform a complex STAR consisting of multiple altitude and speed constraints		Medium
Conduct use of FMS		Can input a lat/long waypoint to the FMS		Medium
Conduct use of FMS		Can demonstrate general awareness of all three styles of flight director		Medium
Conduct use of FMS		Can identify symbology available in synthetic vision system		Medium

Conduct use of FMS		Can differentiate between conformal and non-conformal scaling in the HUD and synthetic vision		Medium
Conduct use of FMS		Can use the cursor control device effectively		High
Conduct use of FMS		Can perform transition between automatic (FMS-controlled) to manual mode and back in the event of a flightpath deviation due to input error or system malfunction.		Medium
Conduct use of TCAS		Can demonstrate the proper use of controls including aircraft configuration required to initiate a self-test.		High
Conduct use of TCAS		Can demonstrate the proper use of controls including steps required to initiate a self-test.		High
Conduct use of TCAS		Can demonstrate the proper use of controls including recognizing when the self-test was successful and when it was unsuccessful. When the self-test is unsuccessful, recognizing the reason for the failure, and if		High

		possible, correcting the problem.		
Understand Auxiliary Power Unit (APU)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Medium
Understand Auxiliary Power Unit (APU)	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Auxiliary Power Unit (APU)	Can explain system or component limitations			Medium
Understand Auxiliary Power Unit (APU)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			Medium
Understand Auxiliary Power Unit (APU)	Can explain immediate action items or memory items, if appropriate			Medium
Understand Auxiliary Power Unit (APU)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium

Understand Auxiliary Power Unit (APU)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Auxiliary Power Unit (APU)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures			Medium
Understand Auxiliary Power Unit (APU)			Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	Medium
Understand Auxiliary Power Unit (APU)			Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	Medium
Understand Auxiliary Power Unit (APU)			Can identify, assess, and manage risks encompassing improper	Medium

			management of a system failure	
Understand Auxiliary Power Unit (APU)			Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	Medium
Understand Avionics and communications - autopilot	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - autopilot	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology			Medium

Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium

Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			Medium

Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures			Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)			Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	Medium
Understand Avionics and communications - communication systems (e.g., data link,			Can identify, assess, and manage risks encompassing failure to follow appropriate	Medium

UHF/VHF/HF, satellite)			checklists or procedures	
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)			Can identify, assess, and manage risks encompassing improper management of a system failure	Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)			Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	Medium
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite) - Radio Failure / Mistune During a Dual Coupled ILS Approach	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Medium

Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain system or component limitations			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain immediate action items or memory items, if appropriate			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	Medium

Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing improper management of a system failure	Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)			Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain the features of the PlaneView System			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the functional characteristics of the cursor control device			Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Crew Alerting System (CAS) Caution	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane			Medium

Messages and Procedures	system, subsystem, or device			
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Synthetic Vision-Primary Flight Display Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Avionics and communications - Flight Management System (FMS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Medium
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and communications -	Can describe the operation of the airplane systems			High

ground-based navigation systems and components	and components using correct terminology			
Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and communications - indicating devices		Can interpret flight path vector symbology as it relates to the PFD and HUD, both caged and uncaged		Medium
Understand Avionics and communications - indicating devices	Can interpret PFD mode annunciations			Medium
Understand Avionics and communications - indicating devices - Charts Function DU 2 and 3 Inoperative procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Avionics and communications - indicating devices - Charts Function Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium

Understand Avionics and communications - indicating devices - Equipment Loss While in RVSM Airspace procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Avionics and communications - indicating devices - Video Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain system or component limitations			Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			Medium

Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain immediate action items or memory items, if appropriate			Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures			Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)			Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)			Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	Medium

Understand Avionics and communications - Inertial Navigation Systems (INS)			Can identify, assess, and manage risks encompassing improper management of a system failure	Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)			Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	Medium
Understand Avionics and communications - Inertial Navigation Systems (INS) - IRS Align in Motion procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Avionics and Communications - Instruments	Can interpret situation information displays, as applicable.			Medium
Understand Avionics and Communications - Instruments	Can describe proper application of controlling and/or advisory RVR, appropriate runway light settings, and proper determination of RVR values reported at foreign facilities.			Medium

Understand Avionics and Communications - Instruments	Can describe proper application of MDA, DA/DH, or AH, including proper use and setting of altimeter bugs, use of the inner marker (IM) where authorized or required due to irregular underlying terrain, and appropriate altimeter setting procedures for the barometric altimeter consistent with the operator's practice of using either altimeter setting referenced to airport ambient local pressure (QNH) or altimeter setting referenced to airport field elevation (QFE).			Medium
Understand Avionics and communications - Radar	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Avionics and communications - Radar	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Low

Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can apply monitoring procedures for each phase of flight (e.g., monitor PROG or LEGS page)		Medium
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can demonstrate familiarization with automatic and/or manual setting of the required RNP value		Medium
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can demonstrate familiarization with the navigation equipment regarding lateral and vertical capture from an RNP routing to an instrument landing system (ILS) or Ground Based Augmentation System (GBAS) Landing System (GLS)		Medium
Understand Avionics and communications - RNP operations in the United States, oceanic and remote		Can demonstrate how offsets are applied, the functionality of their particular navigation system		Medium

continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		and the need to advise air traffic control (ATC) if this functionality is not available		
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can apply receiver/transmitter (R/T) phraseology for RNP applications		Medium
Understand Avionics and communications - terrain awareness/warning/ alert systems	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Avionics and communications - terrain awareness/warning/ alert systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Avionics and communications - transponder	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Avionics and communications - transponder	Can use the appropriate checklists and NORMAL procedures to			High

	demonstrate or describe the proper use of the airplane system, subsystem or device			
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain the airspeeds used during specific phases of flight			Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			Medium
Understand determining takeoff performance (e.g., balance field			Can explain the adverse effects of exceeding an airplane limitation or the	Medium

length, VMCG) per AFM			airplane operating envelope.	
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM			Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM			Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium

Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the airspeeds used during specific phases of flight			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium

Understand determining accelerate-stop / accelerate-go distance per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM			Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM			Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Distance			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Run			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM			Can appreciate that take off distance numbers provided by the AFM are the most restrictive	Medium

			result of numerous part 25 requirements	
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Accelerate-Stop Distance			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely decisions in relation V_1			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can state the different causes of RTOs			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the difference between Takeoff Distance and Takeoff Run			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the Balanced Field Concept			Medium
Understand determining	Can explain why V_1 can be no less			Medium

accelerate-stop / accelerate-go distance per AFM	than V_{MCG} nor can be no more than V_R			
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can conduct a complete takeoff briefing and explain its importance			Medium
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely and correct decisions related to rejected takeoffs (RTO)			Medium
Understand determining climb performance per AFM	Can explain why OEI data may not ensure climb gradient compliance nor obstacle clearance			Medium

Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for “all engine” or “engine inoperative” missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around procedures, acceleration segments or transition following an engine failure between the specified “all-engine lateral flightpath” (or radar vectors) and any specified “engine-inoperative lateral flightpath,” using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.			Medium
Understand determining climb performance per AFM	Can explain considerations for OEI departure development			Medium

Understand determining climb performance per AFM	Can state the definition of takeoff segment			Medium
Understand determining climb performance per AFM	Can state the definitions of gross and net flightpath			Medium
Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining climb performance per AFM	Can explain the airspeeds used during specific phases of flight			Medium
Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			Medium
Understand determining climb performance per AFM			Can explain the adverse effects of exceeding an airplane	Medium

			limitation or the airplane operating envelope.	
Understand determining climb performance per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining climb performance per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining climb performance per AFM			Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and runway excursions	Medium
Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators			Medium
Understand determining climb performance per AFM	Can locate FAA TALPA videos online			Medium

Understand determining climb performance per AFM	Can describe the segments of an instrument departure procedure			Medium
Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures			Medium
Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures			Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain the airspeeds used during specific phases of flight			Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these			Medium

	factors to a specific chart, table, graph, or other performance data			
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM			Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium

Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM			Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining descent performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining descent performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining descent performance per AFM	Can explain the airspeeds used during specific phases of flight			Medium
Understand determining descent performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			Medium
Understand determining descent performance per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane	Medium

			operating envelope.	
Understand determining descent performance per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining descent performance per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining descent performance per AFM			Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining descent performance per AFM			Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining fuel requirements per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium

Understand determining fuel requirements per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining fuel requirements per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			Medium
Understand determining fuel requirements per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining fuel requirements per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining performance with an inoperative powerplant for all	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium

phases of flight per AFM				
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain the airspeeds used during specific phases of flight			Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data			Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining performance with an inoperative			Can identify, assess, and manage risks encompassing	Medium

powerplant for all phases of flight per AFM			Inaccurate use of performance charts, tables, and data	
Understand determining performance with an inoperative powerplant for all phases of flight per AFM			Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM			Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM			Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM - Engine Failure Considerations procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium

Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance			Medium
Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight			Medium
Understand determining weight and balance per AFM			Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining weight and balance per AFM			Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			High

Understand Electrical System - controls	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Electrical System - generators	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Electrical System - generators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Electrical System - generators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			Medium
Understand Electrical System - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane			Medium

	system, subsystem or device			
Understand Electrical System - batteries	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Electrical System - batteries	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Flight Controls - flaps	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Flight Controls - flaps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Flight Controls - speed brakes	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Flight Controls - speed brakes	Can use the appropriate checklists and			Medium

	NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			
Understand Flight Controls - spoilers	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Flight Controls - spoilers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Flight Controls - trim systems	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Flight Controls - trim systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Fuel system - capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology			High

Understand Fuel system - capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Hydraulic system - pressure	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Hydraulic system - pressure	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Hydraulic system - pumps	Can describe the operation of the airplane systems and components using correct terminology			Medium
Understand Hydraulic system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Hydraulic system -	Can describe the operation of the airplane systems			High

regulators/accumulators	and components using correct terminology			
Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Ice Protection - anti-ice & de-ice.	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Ice Protection - anti-ice & de-ice.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Ice Protection airfoil surfaces	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium

Understand Landing Gear - brakes	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Landing Gear - brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Landing Gear - indicators	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Landing Gear - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define declared runway distance			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define landing distance available			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define actual landing distance			Medium

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can interpret and make proper runway condition reports			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "adjusted landing distance"			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "unfactored (certified) landing distance"			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "factored landing distance"			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the point at which landing configuration should be established in a stabilized approach			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe a stabilized approach profile for both VMC and IMC conditions			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of a stabilized descent rate			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of indicated airspeed during a stabilized approach			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that ATP criteria for touchdown point is the aiming point markings -250/+500 feet, or where there are no			Medium

	runway aiming point markings 750 to 1,500 feet from the approach threshold of the runway.			
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the effect of downhill runway slope on required landing distance			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the impact of excess airspeed on landing distance			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the purpose and variables involved in a landing performance assessment at time of arrival			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the effect of wind on landing performance			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can identify critical condition combinations that increase risk of a runway overrun			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain proper landing and braking technique			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the difference between AFM dry, certified/approved data and advisory/suppleme ntal data			Medium
Understand Mitigating Risks of	Can discuss the chain of events that lead to an			Medium

a Runway Overrun Upon Landing	overrun in this example, and relate it to their own experiences			
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can reference applicable regulations for preflight planning			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can calculate the required effective landing distance for dispatch under part 91 and part 135 operations			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the Can U StoP process			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that factors affecting landing distance are cumulative, and why multiple small errors during landing can contribute to a runway overrun			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how an unstabilized approach can contribute to a runway overrun			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how high airport elevation can contribute to a runway overrun			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excess airspeed can contribute to a runway overrun			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how airplane landing weight can			Medium

	contribute to an aircraft overrun			
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing beyond the intended touchdown point can contribute to a runway overrun			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how downhill runway slope can contribute to a runway overrun			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excessive height over the runway threshold can contribute to a runway overrun			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how delayed use of deceleration/maximum breaking can contribute to a runway overrun			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing with a tailwind can contribute to a runway overrun			Medium
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain predeparture planning versus runway condition at time of arrival			Medium
Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the difference between the generic samples in table 3-2 where cumulative errors are made, and table 3-3 where errors are not made			Medium

Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain how use of published approach guidance in visual conditions can reduce errors			Medium
Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the characteristics of effective CRM			Medium
Understand OEM checklist philosophy			Can appreciate that while there are no defined memory items in the AFM, pilots should still be familiar enough with the aircraft to be able to perform initial and critical items without first referencing associated documentation. In addition, pilots are expected to don oxygen masks promptly when appropriate (e.g., when smoke is detected).	Medium
Understand OEM checklist philosophy			Can appreciate that abnormal and emergency procedures are presented in quick reference handbooks (QRH) of an identical format	Medium

			for all three aircraft. Although some individual steps may differ or use different acronyms, these steps are carried out under the guidance of the handbook in a logical decision-making manner	
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Pneumatic and environmental system - controls,	Can use the appropriate checklists and ABNORMAL			Medium

indicators, and regulating devices	procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			
Understand Pneumatic and environmental system - pressurization	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Pneumatic and environmental system - pressurization	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			Medium

Simulator Training Learning Objectives

SIM 1 Learning Objectives

SIM 1 Briefing Items

Tasks	**Knowledge & Cognitive Learning Objectives**
Understand determining landing performance per AFM	Can explain the parameters and importance of a stabilized approach
Understand determining landing performance per AFM	Can explain the importance of accurate and timely assessments of landing distance
Understand determining landing performance per AFM	Can explain the origin and use of runway Declared Distances
Understand determining landing performance per AFM	Can identify and manage risks associated with runway overruns during the landing
Understand determining landing performance per AFM	Can explain the risks associated with tailwind landings and landings on contaminated runways
Understand determining landing performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining landing performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining landing performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining landing performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Conduct after landing, parking and securing	Can explain parking, shutdown, securing, and postflight inspection.
Conduct Arrival Procedures	Can use standard Terminal Arrival (STAR) charts, U.S. Terminal Procedures Publications, and IFR Enroute High and Low Altitude Charts
Conduct Arrival Procedures	Can use a Flight Management System (FMS) or GPS to follow a STAR

Conduct Arrival Procedures	Can explain two-way radio communication failure procedures during an arrival
Conduct Arrival Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)
Conduct Arrival Procedures	Can explain reasons other than visibility that a go around may suddenly be required
Conduct Arrival Procedures	Can explain the characteristics of a pilot braking action report
Conduct Arrival Procedures	Can explain items to consider when a pilot braking action report is reliable
Conduct Before Takeoff Checks	Can explain the purpose of checking each item during before takeoff checks
Conduct Before Takeoff Checks	Can describe how to detect malfunctions
Conduct Before Takeoff Checks	Can ensure the aircraft is in safe operating condition
Conduct Before Takeoff Checks	Can explain deicing and anti-icing procedures
Conduct Before Takeoff Checks	Can describe how to conduct a proper pre-takeoff contamination check
Conduct Before Takeoff Checks	Can describe how adverse weather conditions effect takeoff performance (e.g., snow, ice, gusting crosswinds, low-visibility)
Conduct Before Takeoff Checks	Can give a before takeoff briefing
Conduct Clean Configuration Stall prevention	Can explain aerodynamics associated with stalls in a clean configuration, to include the relationship between angle of attack, airspeed, load factor, power setting, aircraft weight and balance
Conduct Clean Configuration Stall prevention	Can explain stall characteristics of this aircraft type and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel)
Conduct Clean Configuration Stall prevention	Can explain factors and situations that Can lead to a stall during cruise flight and actions that Can be taken to prevent it
Conduct Clean Configuration Stall prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or

	autothrottle/autothrust, if applicable to the aircraft
Conduct Clean Configuration Stall prevention	Can explain fundamentals of stall recovery
Conduct Clean Configuration Stall prevention	Can explain the effects of altitude on performance (e.g., thrust available) and flight control effectiveness during a recovery
Conduct Departure Procedures	Can explain takeoff minimums
Conduct Departure Procedures	Can explain obstacle Departure Procedure (ODP), including Visual Climb over the Airport (VCOA) and Diverse Vector Area (Radar Vectors)
Conduct Departure Procedures	Can explain Standard Instrument Departures (SID), including RNAV departure
Conduct Departure Procedures	Can explain required climb gradients
Conduct Departure Procedures	Can explain U.S. Terminal Procedures Publications and En Route Charts
Conduct Departure Procedures	Can explain proper use of a Flight Management System (FMS) to follow a DP
Conduct Departure Procedures	Can explain pilot/controller responsibilities, communication procedures, and ATC services available to pilots
Conduct Departure Procedures	Can explain two-way radio communication failure procedures after takeoff
Conduct Departure Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)
Conduct Departure Procedures	Can explain communication failure procedures
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can explain declaring an emergency and selection of a suitable airport or landing location

Conduct Go-Around/Rejected Landing	Can describe Proper airborne system use for go-around, including consideration of height loss during transition to a go-around, performance assurance for obstacle clearance, management of any necessary mode changes, and assurance of appropriate vertical and lateral flightpath tracking.
Conduct Go-Around/Rejected Landing	Can explain stabilized approach, to include energy management concepts.
Conduct Go-Around/Rejected Landing	Can explain effects of atmospheric conditions, including wind and density altitude on a go-around or rejected landing.
Conduct Go-Around/Rejected Landing	Can explain wind correction techniques on takeoff/departure and approach/landing.
Conduct Go-Around/Rejected Landing	Can explain situations and considerations on approach that could require a go-around/rejected landing, to include the inability to comply with a LAHSO clearance.
Conduct Go-Around/Rejected Landing	Can explain Go-around/rejected landing procedures, the importance of a timely decision, and appropriate airspeed/V-speeds for the maneuver.
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status
Conduct Landing Configuration Stall Prevention	Can explain aerodynamics associated with stalls in the landing configuration, to include the relationship between angle of attack, airspeed, load factor, power setting, aircraft weight and balance, aircraft attitude, and sideslip effects
Conduct Landing Configuration Stall Prevention	Can explain stall characteristics of this aircraft type and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel)
Conduct Landing Configuration Stall Prevention	Can explain factors and situations that Can lead to a stall when configured for landing and actions that Can be taken to prevent it

Conduct Landing Configuration Stall Prevention	Can explain the effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Conduct Landing Configuration Stall Prevention	Can explain fundamentals of stall recovery
Conduct Landing from a Precision Approach	Can recognize significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH.
Conduct Landing from a Precision Approach	Can recognize ground or navigation system faults, failures or abnormalities at any point during the approach and landing.
Conduct Landing from a Precision Approach	Can explain elements related to the pilot’s responsibilities, and the environmental, operational, and meteorological factors that affect landing from a precision approach.
Conduct Landing from a Precision Approach	Can explain approach lighting systems and runway and taxiway signs, markings and lighting.
Conduct Missed Approach	Can explain that when executing a missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure
Conduct Missed Approach	Can explain elements related to missed approach procedures to include reference to standby or backup instruments.
Conduct Missed Approach	Can explain limitations associated with standard instrument approaches, including while using an FMS or autopilot, if equipped.
Conduct Normal Approach and Landing	Can explain stabilized approach, to include energy management concepts.

Conduct Normal Approach and Landing	Can explain effects of atmospheric conditions, including wind, on approach and landing performance.
Conduct Normal Approach and Landing	Can explain wind correction techniques on approach and landing.
Conduct Normal Approach and Landing	Can identify airport and runway markings, signs, and lights
Conduct Normal Takeoff and Climb	Can describe the effects of atmospheric conditions, including wind, on takeoff and climb performance
Conduct Normal Takeoff and Climb	Can describe the appropriate V-speeds for takeoff and climb
Conduct Normal Takeoff and Climb	Can describe the appropriate aircraft configuration and power setting for takeoff and climb
Conduct Normal Takeoff and Climb	Can identify airport and runway markings, signs, and lights
Conduct Partial Flap Configuration Stall Prevention	Can explain aerodynamics associated with stalls in a partial flap configuration, to include the relationship between angle of attack, airspeed, load factor, power setting, aircraft weight and balance
Conduct Partial Flap Configuration Stall Prevention	Can explain stall characteristics of this aircraft type and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel)
Conduct Partial Flap Configuration Stall Prevention	Can explain factors and situations that Can lead to a stall during takeoff or while on approach and actions that Can be taken to prevent it
Conduct Partial Flap Configuration Stall Prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Conduct Partial Flap Configuration Stall Prevention	Can explain fundamentals of stall recovery
Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations without APU
Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations with APU
Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations without APU

Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations with APU
Conduct Powerplant Start	Can explain procedures for starting engines under various conditions
Conduct Powerplant Start	Can explain possible malfunctions during powerplant start, procedures to address the malfunction, and any associated limitations
Conduct Powerplant Start	Can describe coordinating and communicating with ground personnel for powerplant start, if applicable
Conduct Precision Approach	Can describe normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures
Conduct Precision Approach	Can describe procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.
Conduct Precision Approach	Can recognize the limits of acceptable aircraft position and flightpath tracking during approach, flare and rollout. This should be addressed using appropriate displays or annunciations for either automatic or manual landing systems.
Conduct Precision Approach	Can identify nearby critical terrain or obstruction environment;
Conduct Precision Approach	Can explain procedures and limitations associated with a precision approach, including determining required descent rates and adjusting minimums in the case of inoperative equipment.
Conduct Precision Approach	Can explain navigation system displays, annunciations, and modes of operation.

Conduct Precision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).
Conduct Precision Approach	Can explain stabilized approach criteria, to include energy management concepts.
Conduct Recovery from Unusual Flight Attitudes	Can explain procedures for recovery from unusual attitudes in this aircraft type
Conduct Recovery from Unusual Flight Attitudes	Can explain unusual flight attitude causal factors, including physiological factors, system and equipment failures, and environmental factors
Conduct Recovery from Unusual Flight Attitudes	Can explain and reference the operating envelope and structural limitations for the airplane
Conduct Recovery from Unusual Flight Attitudes	Can explain the effects of engine location, wing design, and other specific design characteristics that could affect aircraft control during the recovery in this aircraft type
Conduct Steep Turns	Can explain energy management required during steep turns
Conduct Steep Turns	Can explain aerodynamics associated with steep turns, to include: Coordinated and uncoordinated flight
Conduct Steep Turns	Can explain aerodynamics associated with steep turns, to include: Overbanking tendencies as relevant to this aircraft type
Conduct Steep Turns	Can explain maneuvering speed, including the impact of weight changes
Conduct Steep Turns	Can explain load factor and accelerated stalls as relevant to this aircraft type
Conduct Steep Turns	Can explain relationship between rate and radius of turn
Conduct Taxi	Can explain the information available on an airport diagram, chart supplement and NOTAMS
Conduct Taxi	Can interpret taxi instructions including published taxi routes
Conduct Taxi	Can identify airport and runway markings, signs, and lights
Conduct Taxi	Can describe proper procedures for entering or crossing runways

Conduct Taxi	Can explain procedures for taxi on one engine
Conduct Taxi	Can explain the hazards of low visibility taxi operations
Conduct Taxi	Can describe appropriate aircraft lighting for day and night operations
Conduct Taxi	Can describe appropriate flight deck activities prior to taxi, including route planning, identifying the location of Hot Spots, and coordinating with crew
Conduct Taxi	Can identify the runway and taxiway characteristics concerning width, safety areas, obstacle free zones, markings, hold lines, signs, holding spots, runway slope, suitability of threshold crossing height (TCH), critical area protection, taxiway position markings, runway distance remaining markings, runway distance remaining signs, and LVO/SMGCS should be addressed.
Conduct Taxi	Can explain the definition of a runway incursion: Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
Conduct Taxi	Can explain why thorough planning for taxi operations is essential for a safe operation
Conduct Taxi	Can conduct briefing of the expected taxi route to include any hold short lines and runways to cross, hot spots, and any other potential conflicts. (Once taxi instructions are received, the pretaxi route should be reviewed and monitored. It is essential that any changes to the taxi route be understood by all crewmembers)
Conduct Taxi	Can identify critical locations on the taxi route, where verbal coordination between the PIC and the SIC is important to avoid a runway incursion. (e.g., hot spots/complex intersections, crossing intervening runways, entering and lining up on the runway for takeoff, and

	approaching and lining up on the runway for landing)
Conduct Taxi	Can conduct briefing of requirements and special considerations during low visibility operations such as: the low visibility taxi chart, if published for the airport
Conduct Taxi	Can maintain knowledge of the aircraft's precise position throughout the taxi operation and mentally calculate the next location on the route that will require increased attention (e.g., a turn onto another taxiway, an intersecting runway, or hot spots)
Conduct Taxi	Can interpret and use all visual aids, and signage and lighting on the airport surface
Conduct Taxi	Can write down complex taxi instructions or copy taxi instructions into the scratch pad of the CDU
Conduct Taxi	Can explain that before entering a runway for takeoff, the flightcrew should verbally coordinate to ensure correct flap setting, identification of the runway, compass heading, FMC entry, and receipt of the proper ATC clearance to use that runway
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain system or component limitations
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain immediate action items or memory items, if appropriate

Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - autopilot	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - autopilot	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - autopilot	Can explain system or component limitations
Understand Avionics and communications - autopilot	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - autopilot	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - autopilot	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - autopilot	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - autopilot	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology

Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to

	document inoperative components of this system and explain related procedures
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite) - Radio Failure / Mistune During a Dual Coupled ILS Approach	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).
Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain system or component limitations
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain the features of the PlaneView System
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the functional characteristics of the cursor control device
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Crew Alerting System (CAS) Caution Messages and Procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Synthetic Vision-Primary Flight Display Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Flight Management System (FMS)	Can explain that DPs and STARs are flown as RNAV 1 procedures. RNAV routes are flown as RNAV 2 unless otherwise specified
Understand Avionics and communications - Flight Management System (FMS)	Can explain that at system initialization, pilots must confirm the navigation database is current and verify the aircraft’s present position.
Understand Avionics and communications - Flight Management System (FMS)	Can explain that RNAV DPs and STAR procedures must be retrieved by procedure name from the onboard navigation database and conform to the charted procedure
Understand Avionics and communications - Flight Management System (FMS)	Can explain that whenever possible, RNAV routes should be extracted from the database in their entirety, rather than loading RNAV route waypoints from the database into the flight plan individually. Selecting and inserting individual, named fixes from the database is permitted, provided all fixes along the published route to be flown are inserted
Understand Avionics and communications - Flight Management System (FMS)	Can explain that manual entry of waypoints using latitude/longitude or place/bearing is not permitted
Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots must not change any RNAV DP or STAR database waypoint type from a flyby to a flyover or vice versa.

Understand Avionics and communications - Flight Management System (FMS)	Can explain that flightcrews should crosscheck the cleared flight plan against charts or other applicable resources, as well as the navigation system textual display and the aircraft map display, if applicable
Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verification of assigned route and correct entry of transitions into RNAV System/FMS
Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verifying their aircraft navigation system is operating correctly and the correct runway and DP (including any applicable en route transition) are entered and properly depicted prior to flight
Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verifying proper entry of their ATC assigned route upon initial clearance and after any subsequent change of route.
Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verifying their aircraft navigation system is operating correctly and the transition and arrival runway is entered and properly displayed
Understand Avionics and communications - Flight Management System (FMS)	Can explain that For DPs, the pilot must be able to engage RNAV equipment to follow flight guidance for lateral RNAV no later than 500 feet above airport elevation.
Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots must use a lateral deviation indicator (or equivalent navigation map display), flight director and/or autopilot in lateral navigation mode on RNAV 1 routes. The full-scale course deviation indicator (CDI) deflection value of ±1 NM is acceptable

Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots of aircraft without GPS/GNSS, using DME/DME/IRU, must ensure the aircraft navigation system position is confirmed, within 1,000 feet, at the start point of takeoff roll. The use of an automatic or manual runway update is an acceptable means of compliance with this requirement. A navigation map may also be used to confirm aircraft position, if pilot procedures and display resolution allow for compliance with the 1,000-foot tolerance requirement
Understand Avionics and communications - Flight Management System (FMS)	Can describe the depiction of waypoint types (flyover and flyby) and path terminators
Understand Avionics and communications - Flight Management System (FMS)	Can describe the required navigation equipment for operation on RNAV routes, DPs, and STARs (for example, DME/DME/IRU and GPS/GNSS)
Understand Avionics and communications - Flight Management System (FMS)	Can describe system specific levels of automation, mode annunciations, mode changes, alerts, interactions, reversions and degradation
Understand Avionics and communications - Flight Management System (FMS)	Can describe the functional interaction with other aircraft systems
Understand Avionics and communications - Flight Management System (FMS)	Can describe the meaning and appropriateness of route discontinuities as well as related flightcrew procedures
Understand Avionics and communications - Flight Management System (FMS)	Can describe the monitoring procedures for each phase of flight (for example, monitor PROG or LEGS page)
Understand Avionics and communications - Flight Management System (FMS)	Can explain the types of navigation sensors (for example, DME, IRU, GPS/GNSS) utilized by the RNAV system and associated system prioritization/weighting/logic
Understand Avionics and communications - Flight Management System (FMS)	Can explain turn anticipation regarding speed and altitude effects
Understand Avionics and communications - Flight Management System (FMS)	Can describe proper interpretation of electronic displays and symbols
Understand Avionics and communications - Flight Management System (FMS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Understand Avionics and communications - Flight Management System (FMS)	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Flight Management System (FMS)	Can explain system or component limitations
Understand Avionics and communications - Flight Management System (FMS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Flight Management System (FMS)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Flight Management System (FMS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - Flight Management System (FMS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - Flight Management System (FMS) - FMS Powers Up in Single or Independent Mode procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that the onboard navigation data must be current and appropriate for the region of intended operation and must include the navigation aids, waypoints, and relevant coded terminal airspace procedures for the departure, arrival, and alternate airfields.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that the pilot must notify ATC of any loss of the RNAV capability, together with the proposed course of action. If unable to comply with the requirements of an RNAV procedure, pilots must advise ATC as soon as possible.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that RNAV 1 requires a total system error of not more than 1 nautical mile (NM) for 95 percent of the total flight time.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that RNAV 2 requires a total system error of not more than 2 NM for 95 percent of the total flight time

Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that Receiver Autonomous Integrity Monitoring (RAIM) is a technique used within a GPS receiver/processor to monitor GPS signal performance and is achieved by a consistency check among redundant measurements.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that an Instrument Departure Procedure (DP) is a published instrument flight rules (IFR) procedure providing obstruction clearance from the terminal area to the en route structure.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that there are two types of DPs: Standard Instrument Departures (SIDs) and Obstacle Departure Procedures (ODPs)
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that a SID is a published IFR air traffic control (ATC) DP providing obstacle clearance and a transition from the terminal area to the en route structure.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that SIDs are primarily designed for air traffic system enhancement to expedite traffic flow and to reduce pilot/controller workload.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that ODPs are recommended for obstruction clearance and may be flown without ATC clearance unless an alternate DP (SID or radar vector) has been specifically assigned by ATC.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that a Standard Terminal Arrival (STAR) is a published IFR ATC arrival procedure that provides a transition from the en route structure to the terminal area
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that an RNAV route within the high or low altitude structure of the contiguous United States, is designated by a "Q" or "T"
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that operation on U.S. RNAV routes, DPs and STARs relies on normal descent profiles and identifies minimum segment altitude requirements

Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that pilots operating aircraft with an approved barometric vertical navigation (baro-VNAV) system may continue to use their baro-VNAV system while executing U.S. RNAV routes, DPs, and STARs, however operators must ensure compliance with all altitude constraints as published in the procedure by reference to the barometric altimeter
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that operation on U.S. RNAV routes, DPs and STARs does not require the pilot to monitor ground-based Navigational Aids (NAVAID) used in position updating unless required by the Airplane Flight Manual (AFM), pilot's operating handbook (POH), or the operating manual for their avionics
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that operation on U.S. RNAV routes, DPs and STARs bases obstacle clearance assessments on the associated required RNAV system performance
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain system or component limitations
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Avionics and communications - Global Navigation Satellite System (GNSS) - GPS / SBAS Reception Loss During RNAV (GPS) Approach to Minima procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe the performance requirement and the fail-down capabilities of the system
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe alternate airport requirements and selection of an alternate airport.
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe the meaning and proper use of aircraft equipment/navigation suffixes
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can explain instrument procedure characteristics as determined from chart depiction and textual description
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can state that manual change of waypoints included in the approach is prohibited
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can differentiate between ILS flight guidance cues and LPV guidance cues
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can obtain required navigation equipment for approach operations using WAAS or any operational restrictions/limitations, as outlined in the AFM, RFM, AFMS, OpSpec, MSpec, or LOA.

Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe levels of automation, mode annunciations, changes, alerts, interactions, reversions, and degradations.
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe functional integration with other aircraft systems
Understand Avionics and communications - ground-based navigation systems and components	Can describe the navigation systems to be used, such as the instrument landing system (ILS) with its associated critical area protection criteria, marker beacons, distance measuring equipment (DME), compass locators, or other relevant systems should be addressed to the extent necessary for safe operations. For Ground Based Augmentation System (GBAS) Landing System (GLS)), any characteristics or constraints regarding that method of navigation must be addressed (e.g., proper procedure waypoint selection and use, integrity assurance, loss of satellite availability or failure, terrain masking).
Understand Avionics and communications - ground-based navigation systems and components	Can identify Visual aids including Approach Lighting Systems (ALS), runway lighting systems, markings/lighting associated with declared distances, taxiway lighting, color coding of the centerline lighting for distance remaining, Low-Visibility Operations (LVO)/Surface Movement Guidance and Control System (SMGCS) lighting, and any other lighting systems relevant to an AWO environment should be addressed.
Understand Avionics and communications - ground-based navigation systems and components	Can identify automatic or perform manual input requiring parameters, such as inbound course or automatic/manually tuned navigation frequencies, the importance of checking that proper selections have been made to ensure appropriate system performance, and the

	sequence and management of any mode changes.
Understand Avionics and communications - ground-based navigation systems and components	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - ground-based navigation systems and components	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - ground-based navigation systems and components	Can explain system or component limitations
Understand Avionics and communications - ground-based navigation systems and components	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - ground-based navigation systems and components	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - ground-based navigation systems and components	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and Communications - HUD	Can identify all HUD symbology
Understand Avionics and Communications - HUD	Can explain the FPV
Understand Avionics and Communications - HUD	Can explain non-conformal LDI
Understand Avionics and Communications - HUD	Can recognize unusual attitudes when using the HUD

Understand Avionics and Communications - HUD	Can describe crew coordination when using the HUD
Understand Avionics and Communications - HUD	Can describe crew briefings and callouts
Understand Avionics and Communications - HUD	Can describe duties of the pilot flying and pilot monitoring when using HUD
Understand Avionics and Communications - HUD	Can interpret HUD II symbology including caged FPV, non-conformal LDI, and unusual attitudes
Understand Avionics and communications - indicating devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - indicating devices	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - indicating devices	Can explain system or component limitations
Understand Avionics and communications - indicating devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - indicating devices	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - indicating devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - indicating devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - indicating devices	Can interpret PFD mode annunciations
Understand Avionics and communications - indicating devices - Charts Function DU 2 and 3 Inoperative procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - indicating devices - Charts Function Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - indicating devices - Equipment Loss While in RVSM Airspace procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Avionics and communications - indicating devices - Video Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain system or component limitations
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - Inertial Navigation Systems (INS) - IRS Align in Motion procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and Communications - Instruments	Can interpret situation information displays, as applicable.
Understand Avionics and Communications - Instruments	Can describe proper application of controlling and/or advisory RVR, appropriate runway light settings, and proper determination of RVR values reported at foreign facilities.

Understand Avionics and Communications - Instruments	Can describe proper application of MDA, DA/DH, or AH, including proper use and setting of altimeter bugs, use of the inner marker (IM) where authorized or required due to irregular underlying terrain, and appropriate altimeter setting procedures for the barometric altimeter consistent with the operator's practice of using either altimeter setting referenced to airport ambient local pressure (QNH) or altimeter setting referenced to airport field elevation (QFE).
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe the meaning and proper use of aircraft equipment/navigation capability codes used on the flight plan
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain instrument procedure characteristics as determined from chart depiction and textual description
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret the depiction of waypoint types (flyover and flyby) as well as associated aircraft flightpaths
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain that a waypoint may be a flyover in one procedure and the same waypoint may also be a flyby in another procedure;
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can list required equipment for RNP operations
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret aircraft automation, mode annunciations, changes, alerts, interactions, reversions, and degradations

Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain functional integration with other aircraft systems
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the meaning of route discontinuities and appropriate flightcrew procedures;
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can list the types of navigation sensors used by the RNP system and their annunciations
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain turn anticipation with consideration to speed and altitude effects
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret electronic displays and symbols
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe appropriate selection of course deviation indicator (CDI) scaling (lateral deviation display scaling)
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the importance of maintaining the published path and maximum airspeeds while performing RNP operations with Radius to Fix (RF) legs (if applicable)
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret the depiction of path terminators, associated aircraft flightpaths, altitude, and speed restrictions
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe flightcrew contingency procedures for a loss of RNP capability; and

Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the performance requirement to couple the autopilot (AP)/flight director (FD) to the navigation system's lateral guidance on RNP procedures, if required
Understand Avionics and Communications - Supporting Systems	Can interpret Other associated instrumentation and displays including any head-up display, guidance system, vision system, monitoring displays, status displays, mode annunciation displays, failure or warning annunciations, and associated system status displays that may be relevant. When such airborne systems are used as the basis for category(s) of minima (e.g., HUD or SVGS for Special Authorization (SA) CAT I; AP, F/D, or HUD for CAT I Landing Minima with Reduced Lighting (RVR 1800)), training should address the relationships between the various system components and the minima for which they are required.
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight

Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Accelerate-Stop Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely decisions in relation V_1
Understand determining accelerate-stop / accelerate-go distance per AFM	Can state the different causes of RTOs
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the difference between Takeoff Distance and Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the Balanced Field Concept
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain why V_1 can be no less than V_{MCG} nor can be no more than V_R
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.
Understand determining accelerate-stop / accelerate-go distance per AFM	Can conduct a complete takeoff briefing and explain it's importance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely and correct decisions related to rejected takeoffs (RTO)
Understand determining climb performance per AFM	Can explain why OEI data may not ensure climb gradient compliance nor obstacle clearance

Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for "all engine" or "engine inoperative" missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around procedures, acceleration segments or transition following an engine failure between the specified "all-engine lateral flightpath" (or radar vectors) and any specified "engine-inoperative lateral flightpath," using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.
Understand determining climb performance per AFM	Can explain considerations for OEI departure development
Understand determining climb performance per AFM	Can state the definition of take off segment
Understand determining climb performance per AFM	Can state the definitions of gross and net flighpath
Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining climb performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators
Understand determining climb performance per AFM	Can locate FAA TALPA videos online
Understand determining climb performance per AFM	Can describe the segments of an instrument departure procedure

Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures
Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining descent performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining descent performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining descent performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining descent performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining fuel requirements per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining fuel requirements per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight

Understand determining fuel requirements per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining performance with an inoperative powerplant for all phases of flight per AFM - Engine Failure Considerations procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand Envelope protection—angle of attack warning and protection and speed protection	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Envelope protection—angle of attack warning and protection and speed protection	Can describe the operation of the airplane systems and components using correct terminology
Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain system or component limitations
Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain immediate action items or memory items, if appropriate
Understand Envelope protection—angle of attack warning and protection and speed protection	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Envelope protection—angle of attack warning and protection and speed protection	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Envelope protection—angle of attack warning and protection and speed protection	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Lighting	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Lighting	Can describe the operation of the airplane systems and components using correct terminology
Understand Lighting	Can explain system or component limitations
Understand Lighting	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Lighting	Can explain immediate action items or memory items, if appropriate
Understand Lighting	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Lighting	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Lighting	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define declared runway distance

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define landing distance available
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define actual landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can interpret and make proper runway condition reports
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "adjusted landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "unfactored (certified) landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "factored landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the point at which landing configuration should be established in a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe a stabilized approach profile for both VMC and IMC conditions
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of a stabilized descent rate
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the charcteristics of indicated airspeed during a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that ATP criteria for touchdown point is the aiming point markings - 250/+500 feet, or where there are no runway aiming point markings 750 to 1,500 feet from the approach threshold of the runway.
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the effect of downhill runway slope on required landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the impact of excess airspeed on landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the purpose and variables involved in a landing performance assessment at time of arrival
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the effect of wind on landing performance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can identify critical condition combinations that increase risk of a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain proper landing and braking technique
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the difference between AFM dry, certified/approved data and advisory/supplemental data

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can discuss the chain of events that lead to an overrun in this example, and relate it to their own experiences
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can reference applicable regulations for preflight planning
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can calculate the required effective landing distance for dispatch under part 91 and part 135 operations
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the Can U StoP process
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that factors affecting landing distance are cumulative, and why mulitple small errors during landing can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how an unstabilized approach can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how high airport elevation can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excess airspeed can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how airplane landing weight can contribute to an aircraft overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing beyond the intended touchdown point can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how downhill runway slope can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excessive height over the runway threshold can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how delayed use of deceleration/maximum breaking can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing with a tailwind can can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain predeparture planning versus runway condition at time of arrival
Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the difference between the generic samples in table 3-2 where cumualtive errors are made, and table 3-3 where errors are not made
Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain how use of published approach guidance in visual conditions can reduce errors

Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the characteristics of effective CRM
Understand OEM checklist philosohpy	Can state the initial critical pilot responses promptly and without reference to a checklist: Stall protection/stall warning activation.
Understand Powerplant - allowable types of oil	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - allowable types of oil	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - allowable types of oil	Can explain system or component limitations
Understand Powerplant - allowable types of oil	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - allowable types of oil	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - allowable types of oil	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - allowable types of oil	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - allowable types of oil	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Specific Flight Characteristics	Can describe Any aircraft characteristics relevant to all weather operations, such as flight deck visibility cutoff angles and the effect on flight deck visibility of proper eye height, seat position or instrument lighting intensities related to transition through areas of varying brightness levels. Pilots should be aware of the effects on flight visibility related to use of different flap settings, approach speeds, use of various landing or taxi lights, and proper procedures for use of windshield wipers and rain repellent. If windshield defog, anti-ice, or de-icing systems affect forward visibility, pilots should be aware of those effects and be familiar with proper settings for use of that equipment related to low-visibility landing.
Understand Specific Flight Characteristics	Can describe Visual reference information and address aircraft geometry limitations on visual references, actions to take with loss or partial loss of visual references, risks of inappropriate use of visual references, and necessary visual references for continuation after MDA or DA/DH. Issues discussed in Chapter 4, Procedures, for continuation or discontinuation of an approach should be comprehensively addressed.
Understand Specific Flight Characteristics	Can identify expected minimum visual references that occur on approach when the weather is at acceptable minimum conditions as well as the expected sequence of visual cues during an approach in which the visibility is at or above the specified landing minima. Training on this topic should include identifying required visual references over a range of actual or simulated low-visibility

Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Recognition of impending stall indications and understanding of the need to initiate the stall recovery procedure at an impending stall.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Recognition of full stall indication (see paragraph 1-7) with the realization that most swept-wing transport category aircraft exhibit full stall characteristics different from those typically experienced in General Aviation (GA) aircraft used during certification training.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: For airplanes equipped with a stick pusher, recommended recovery actions in response to stick pusher activation.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Avoiding cyclical or oscillatory control inputs to prevent exceeding the structural limits of the airplane.

Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Structural considerations, including explanation of limit load, ultimate load, and the dangers of combining accelerative and rolling moments (i.e., the rolling pull) during recovery.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: The necessity for smooth, deliberate, and positive control inputs to avoid unacceptable load factors and secondary stalls.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: AOA must be reduced prior to controlling roll.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Effectiveness of control surfaces and the order in which the control surfaces lose and regain their effectiveness (e.g., spoilers, ailerons, etc.).

Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: If a terrain awareness warning system (TAWS) warning is encountered during recovery from a low altitude stall event, recovery from the stall warning should take precedence. Once the airplane recovers from the stall event, then execute the TAWS escape maneuver.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: AOA versus pitch angle.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Rate of onset including rate of airspeed decay (both low and high).
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Airplane configuration and condition including weight, center of gravity (CG), landing gear, flaps/slats, spoilers/speed brakes, etc.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Asymmetric loading including thrust asymmetries, wing loading due to roll or yaw transients or uncoordinated flight.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: G loading.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Bank angle.

Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Thrust and lift vectors.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Thrust required versus thrust available.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Wind shear.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Altitude.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Mach effects.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Situational Awareness.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Mode confusion, including unexpected/unannounced mode changes.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: unexpected transition from automated to manual flight.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Contamination (ice), including the effect of icing on stall speed and stall warnings.

Understand Stall Prevention and Recovery	Can demonstrate an understanding of AOA indicators (if installed) or interpretation of other representations of AOA such as pitch-limit indicators or speed display symbology that can assist in stall prevention.
Understand Stall Prevention and Recovery	Can explain specific stall and low-speed buffet characteristics unique to the airplane type and any implications for the expected flight operations and airplane-specific stall recovery procedure (e.g., underwing mounted engines, t-tail, propellers, etc.).
Understand Stall Prevention and Recovery	Can describe thrust settings and its application.
Understand Stall Prevention and Recovery	Can describe autothrottle/autothrust protection.
Understand Stall Prevention and Recovery	Can demonstrate awareness of autoflight mode indications.
Understand Stall Prevention and Recovery	Can explain incorrect use of (including input errors) flightpath automated systems.
Understand Stall Prevention and Recovery	Can explain the operation and function of stall protection systems in normal, abnormal, and emergency situations, including the hazards of overriding or ignoring stall protection system indications. Awareness of the factors that may lead such systems to fail, as well as degraded modes, indications, or behaviors that may occur with system failures.
Understand Stall Prevention and Recovery	Can explain buffet boundary and margins in flight planning and operational flying.
Understand Stall Prevention and Recovery	Can explain the lower margins for stall onset and recovery (i.e., coffin corner) and possible buffet cueing differences on the high-speed versus the low-speed margin.
Understand Stall Prevention and Recovery	Can explain the principles of high-altitude aerodynamics, performance capabilities, and limitations; including high altitude operations and flight techniques (i.e., the need to avoid secondary stall by extended nose-down recovery, compared to lower altitudes).

Understand Stall Prevention and Recovery	Can explain the differences in airplane performance (e.g., thrust available) during high versus low altitude operations, the effects of those differences on stall recovery, and the anticipated altitude loss during a recovery.
Understand Stall Prevention and Recovery	Can explain the differences between transport category airplane certification and GA airplane certification regarding use of flight controls at high AOA. For example, if the roll control system is compromised and the ailerons are unable to produce the required roll recovery, the rudder may be used with care during stall prevention and recovery. To maintain structural integrity, it is important to guard against control reversals—avoid rapid full-scale reversal of control deflection
Understand Stall Prevention and Recovery	Can demonstrate general awareness of example events. Although significant emphasis should be placed on preventing stall events, it is important for pilots to understand that, although rare, stall events continue to occur. Studying the causes and contributing factors of stall events give pilots more knowledge to help prevent or if necessary, recover from a stall event. A review of stall-related accidents, incidents, ASAP, FOQA, and ASRS data for the specific airplane type or class should be included in ground training.

Conduct Stall Prevention and Recovery	Can explain the STICK PUSHER. For airplanes equipped with a stick pusher, stall recovery training includes ground training and practical training in an FFS. It is important for pilots to experience the sudden forward movement of the control yoke/stick during a stick pusher activation. From observations, most instructors state that, regardless of previous academic training, pilots usually resist the stick pusher on their first encounter. Usually, they immediately pull back on the control yoke/stick rather than releasing pressure as they have been taught. Therefore, pilots must receive practical stick pusher training in an FFS to develop the proper response (allowing the pusher to reduce AOA) when confronted with a stick pusher activation. Stick pusher training should be completed as a demonstration/practice exercise, including repetitions, until the pilot's reaction is to permit the reduction in AOA even at low altitudes. Pilot response to a deliberate activation of the pusher is not a checked maneuver.

Tasks	**Motor Skill Learning Objectives**	**Attitude Learning Objectives**	**Task Expectation Rating**
Understand determining landing performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	Medium
Conduct after landing, parking and securing	Can demonstrate runway incursion avoidance procedures.		Medium

Conduct after landing, parking and securing	Can comply with ATC instructions and perform radio calls as appropriate.		Medium
Conduct after landing, parking and securing	Can coordinate with crew, if applicable, and execute the appropriate checklist(s) after clearing the runway.		Medium
Conduct after landing, parking and securing	Can perform parking in the appropriate area, considering the safety of nearby persons and property.		Medium
Conduct after landing, parking and securing	Can execute a postflight inspection and document discrepancies and servicing requirements, if any.		Medium
Conduct after landing, parking and securing	Can perform securing the airplane.		Medium
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions.	Medium
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions.	Medium
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing propeller,	Medium

		turbofan inlet, and exhaust safety.	
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing airport specific security procedures.	Medium
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing disembarking passengers.	Medium
Conduct Arrival Procedures		Can manage the risk of errors when assigned a STAR and subsequently receives a change of landing runway, procedure or transition by verifying the appropriate changes are entered and available for navigation	Medium
Conduct Arrival Procedures	Can select, identify and use the appropriate communication and navigation facilities associated with the arrival		Medium
Conduct Arrival Procedures	Can perform setup of FMS and avionics to include flight director and autopilot controls for the arrival, if applicable		Medium

Conduct Arrival Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		Medium
Conduct Arrival Procedures	Can initiate two-way communications with the proper controlling agency		Medium
Conduct Arrival Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		Medium
Conduct Arrival Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		Medium
Conduct Arrival Procedures	Can comply with all applicable charted procedures		Medium
Conduct Arrival Procedures	Can comply with airspeed restrictions required by regulation, procedure, aircraft limitation or ATC		Medium
Conduct Arrival Procedures	Can maintain rate of descent consistent with the route segment, airplane operating characteristics and safety		Medium
Conduct Arrival Procedures	Can maintain the appropriate airspeed/V-speed ±10 knots, but not less than VRef if applicable, heading ±10°, altitude ±100		Medium

	feet, and accurately track radials, courses, and bearings		
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures.	Medium
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to recognize limitations of traffic avoidance equipment.	Medium
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to use see and avoid techniques when possible.	Medium
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing improper automation management.	Medium
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing ATC instructions that modify an arrival or discontinue/resu	Medium

		me the aircraft's lateral or vertical navigation on an arrival.	
Conduct Before Takeoff Checks		Can manage the risk of errors when assigned an RNAV DP and subsequently receives a change of runway, procedure or transition by verifying the appropriate changes are entered and available for navigation prior to takeoff.	Medium
Conduct Before Takeoff Checks	Can determine the airplane's takeoff performance for actual conditions and planned departure runway		Medium
Conduct Before Takeoff Checks	Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		Medium
Conduct Before Takeoff Checks	Can confirm all systems checked are within an acceptable operating range and are safe for the proposed flight		Medium
Conduct Before Takeoff Checks	Can explain any system operating characteristic or limitation and any corrective action for a malfunction during the checks		Medium

Conduct Before Takeoff Checks	Can determine airspeeds/V-speeds and set flight instruments appropriately		Medium
Conduct Before Takeoff Checks	Can use flight director and autopilot controls for the current flight conditions and takeoff and departure clearances		Medium
Conduct Before Takeoff Checks	Can perform configuration of navigation equipment for takeoff and departure clearances		Medium
Conduct Before Takeoff Checks	Can configure communication equipment for takeoff and departure clearances		Medium
Conduct Before Takeoff Checks	Can obtain and correctly interpret the takeoff and departure clearance		Medium
Conduct Before Takeoff Checks	Can conduct a briefing that includes procedures for emergency and abnormal situations (e.g., powerplant failure, windshear), which may be encountered during takeoff, and state the planned action if they were to occur		Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing division of attention while	Medium

		conducting before takeoff checks	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing an unexpected change in the runway to be used for departure	Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to verify performance data is correct and airspeeds and flight instruments are set for actual conditions and the departure runway	Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to set navigation and communication equipment for departure	Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to configure autopilot and flight director controls for departure	Medium

Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to account for adverse weather conditions prior to takeoff (e.g., snow, ice, gusting crosswinds, low-visibility)	Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing A powerplant failure during takeoff or other malfunction considering operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions	Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	Medium
Conduct Departure Procedures	Can select the appropriate instrument departure procedure.		Medium

Conduct Departure Procedures	Can select, identify and use the appropriate communication facilities associated with the procedure		Medium
Conduct Departure Procedures	Can select, identify and use the appropriate navigation facilities associated with the procedure		Medium
Conduct Departure Procedures	Can perform programming the FMS prior to departure and execute avionics setup of flight director and autopilot controls for the departure		Medium
Conduct Departure Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		Medium
Conduct Departure Procedures	Can initiate two-way communications with the proper controlling agency		Medium
Conduct Departure Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		Medium
Conduct Departure Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		Medium
Conduct Departure Procedures	Can comply with all applicable charted procedures		Medium

Conduct Departure Procedures	Can maintain the appropriate airspeed ±10 knots, headings ±10°, and altitude ±100 feet, and accurately track a course, radial, or bearing		Medium
Conduct Departure Procedures	Can execute the departure phase to a point where the transition to the en route environment is complete		Medium
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures and required climb gradients	Medium
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing limitations of air traffic avoidance equipment and use of see and avoid techniques	Medium
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing improper automation management	Medium
Conduct Emergency Procedure - Flight by	Can coordinate with crew and execute the appropriate		Medium

reference to standby flight instruments, backup instrumentation, or partial panel	checklist(s) in a timely manner		
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can perform communication with ATC and the evaluator, as appropriate for the situation.		Medium
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	Medium
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	Medium
Conduct Emergency Procedure - Flight by reference to		Can identify, assess, and manage risks, encompassing failure to consider	Medium

standby flight instruments, backup instrumentation, or partial panel		altitude, wind, terrain, and obstructions in an emergency.	
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can execute use of LNAV mode(s).		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance	Can execute use of VNAV mode(s).		Medium

without vertical guidance lines of minima using the wide area augmentation system			
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can apply ATC procedures/phraseolo gy		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can apply functionality of vector to final mode		Medium

Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can perform the use of navigation systems including procedure selection and ILS look-alike principle:		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can perform flying of a procedure		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer	Can perform setup and interpretation of electronic displays and symbols.		Medium

performance without vertical guidance lines of minima using the wide area augmentation system			
Conduct Interior and exterior preflight		Can identify, assess, and manage risks encompassing Inoperative equipment discovered prior to flight.	High
Conduct Interior and exterior preflight		Can identify, assess, and manage risks encompassing external pressures and Aviation security concerns.	High
Conduct Landing from a Precision Approach	Can perform proper reaction to significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH. Expected pilot response to failure after touchdown should be addressed as well.		Medium
Conduct Landing from a Precision Approach	Can recognize and execute appropriate actions in response to ground or navigation system faults, failures or abnormalities at any point during the approach and landing.		Medium

Conduct Landing from a Precision Approach		Can appreciate that pilots should be familiar with the need to report navigation system anomalies or discrepancies, failures of any lighting system (e.g., approach lights, runway lights, touchdown zone (TDZ) lights, centerline lights), or any other discrepancies that could be pertinent to operations.	Medium
Conduct Landing from a Precision Approach		Can demonstrate familiarization with operator’s policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as directional control or stopping performance is concerned, and flight crews should be familiar with appropriate constraints related to braking	Medium

		reports and the obscuration of appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway contaminants and condition reporting.	
Conduct Landing from a Precision Approach	Can maintain the desired airspeed, ±5 knots, and vertical and lateral guidance within ¼-scale deflection of the indicators during the descent from DA/DH to a point where visual maneuvering is used to accomplish a normal landing.		Medium
Conduct Landing from a Precision Approach	Can comply with all ATC advisories, such as NOTAMs, windshear, wake turbulence, runway surface, braking conditions, and other operational considerations.		Medium
Conduct Landing from a Precision Approach	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the		Medium

	approach threshold of the runway		
Conduct Landing from a Precision Approach	Can maintain positive airplane control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		Medium
Conduct Landing from a Precision Approach	Can demonstrate SRM or CRM, as appropriate.		Medium
Conduct Landing from a Precision Approach	Can apply runway incursion avoidance procedures.		Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing selection of an approach procedure and runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing wake turbulence.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing	Medium

		planning for missed approach	
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for land and hold short operations (LAHSO)	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for distractions, loss of situational awareness, or improper task management.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing	Medium

		planning for attempting to land from an unstable approach.	
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for flying below the glidepath.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for transitioning from instrument to visual references for landing.	Medium
Conduct Missed Approach	Can execute a missed approach from the MDA, DA/DH, or AH.		Medium
Conduct Missed Approach	Can execute a missed approach from a low altitude that could result in a touchdown during go-around (balked or rejected landing).		Medium
Conduct Missed Approach	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		Medium
Conduct Missed Approach	Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and		Medium

	at a safe altitude, and initiate a positive rate of climb at the appropriate airspeed/V- speed, ±5 knots.		
Conduct Missed Approach	Can coordinate with crew and execute the appropriate procedures and checklist(s) in a timely manner.		Medium
Conduct Missed Approach	Can comply with the published or alternate missed approach procedure.		Medium
Conduct Missed Approach	Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		Medium
Conduct Missed Approach	Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure.		Medium
Conduct Missed Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		Medium
Conduct Missed Approach	Can demonstrate effective CRM		Medium
Conduct Missed Approach	Can execute re-engagement of the autopilot at appropriate times during the missed approach procedure.		Medium

Conduct Missed Approach	Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix, or other clearance limit, as appropriate, or as directed by the evaluator.		Medium
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to follow prescribed procedures.	Medium
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing holding, diverting, or electing to fly the approach again.	Medium
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	Medium
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing factors that might lead to executing a missed approach procedure before the MAP or to a	Medium

		go-around below DA/MDA.	
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	Medium
Conduct Normal Approach and Landing	Can execute normal landings at the lowest applicable minima for each authorized flight guidance and/or visual system.		Medium
Conduct Normal Approach and Landing	Can perform manual rollout in low visibility at applicable minima. (except for aircraft using an automatic fail operational (FO) rollout system)		Medium
Conduct Normal Approach and Landing	Can perform landings at the limiting environmental conditions authorized for that operator with respect to wind, crosswind components, and runway surface friction characteristics		Medium
Conduct Normal Approach and Landing	Can coordinate with crew and execute after landing checklists(s).		Medium
Conduct Normal	Can perform radio calls as appropriate		Medium

Approach and Landing			
Conduct Normal Approach and Landing	Can maintain a ground track that ensures the desired traffic pattern will be flown taking into consideration obstructions and ATC		Medium
Conduct Normal Approach and Landing	Can confirm the airplane is aligned with the correct/assigned runway or landing surface.		Medium
Conduct Normal Approach and Landing	Can scan runway or landing surface and adjoining area for traffic and obstructions.		Medium
Conduct Normal Approach and Landing	Can select a suitable touchdown point considering wind, landing surface, and obstructions.		Medium
Conduct Normal Approach and Landing	Can perform establishing the recommended approach and landing configuration and airspeed, ±5 knots, and adjust pitch attitude and power as required to maintain a stabilized approach.		Medium
Conduct Normal Approach and Landing	Can maintain directional control and appropriate crosswind correction throughout the approach and landing.		Medium
Conduct Normal Approach and Landing	Can perform smooth, timely, and correct control application		Medium

	before, during, and after touchdown.		
Conduct Normal Approach and Landing	Can execute touch down with the runway centerline between the main landing gear at the appropriate speed and pitch attitude at the runway aiming point markings -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		Medium
Conduct Normal Approach and Landing	Can execute deceleration to taxi speed (20 knots or less on dry pavement, 10 knots or less on contaminated pavement) to within the calculated landing distance plus 25% for the actual conditions with the runway centerline between the main landing gear		Medium
Conduct Normal Approach and Landing	Can execute a timely go-around if the approach cannot be made within the tolerances specified above or for any other condition that may result in an unsafe approach or landing.		Medium
Conduct Normal Approach and Landing	Can apply runway incursion avoidance procedures.		Medium

Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing selection of a runway or approach path and touchdown area-based aircraft limitations, available distance, surface conditions, and wind.	Medium
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing wake turbulence.	Medium
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing Go-Around/Rejected Landing	Medium
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing land and Hold Short Operations (LAHSO)	Medium
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Medium

Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, incorrect airport surface approach and landing, or improper task management.	Medium
Conduct Normal Takeoff and Climb	Can perform takeoff in limiting crosswinds, winds, gusts, and runway surface friction to levels authorized. Training should be done at weights or on runways that represent a critical field length		High
Conduct Normal Takeoff and Climb	Can coordinate with crew and complete the appropriate checklist(s) prior to takeoff in a timely manner		High
Conduct Normal Takeoff and Climb	Can perform radio calls as appropriate		High
Conduct Normal Takeoff and Climb	Can verify assigned/correct runway		High

Conduct Normal Takeoff and Climb	Can verify the airplane is configured for takeoff		High
Conduct Normal Takeoff and Climb	Can execute clearing of the area and taxi into takeoff position and align the airplane on the runway centerline		High
Conduct Normal Takeoff and Climb	Can maintain centerline and proper flight control inputs during the takeoff roll		High
Conduct Normal Takeoff and Climb	Can confirm takeoff power and proper engine and flight instrument indications prior to rotation and perform callouts as appropriate, for the airplane or per the operator's procedures		High
Conduct Normal Takeoff and Climb	Can perform rotation and lift off at the recommended airspeed		High
Conduct Normal Takeoff and Climb	Can maintain a power setting and a pitch attitude to maintain the desired climb airspeed/V-speed, ±5 knots for each climb segment		High
Conduct Normal Takeoff and Climb	Can maintain desired heading ±5°		High
Conduct Normal Takeoff and Climb	Can perform Retraction of the landing gear and flaps in accordance with manufacturer or operator procedures		High

	and limitations, as appropriate		
Conduct Normal Takeoff and Climb	Can perform wake turbulence avoidance		High
Conduct Normal Takeoff and Climb	Can follow noise abatement procedures		High
Conduct Normal Takeoff and Climb	Can execute appropriate after-takeoff checklist(s) in a timely manner		High
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing selection of a runway, or runway intersection aircraft limitations, available distance, surface conditions, and wind	High
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing wake turbulence	High
Conduct Normal Takeoff and Climb		Can demonstrate proper planning for rejected takeoff	High
Conduct Normal Takeoff and Climb		Can demonstrate proper planning for engine failure in takeoff phase of flight	High

Conduct Normal Takeoff and Climb		Can demonstrate proper planning for engine failure in climb phase of flight	High
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing improper aircraft configuration or settings (e.g., trim, flaps, autobrakes, etc.)	High
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife	High
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management	High
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can execute procedure with smoothness and accuracy		Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can operate the airplane within its limitations		Medium

Conduct PFD malfunction procedure (AGM 1 or DU1)	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can apply aeronautical knowledge to execution of the task	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can apply crew coordination	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can conduct effective communication with the other crew members	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can manage crew cooperation	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can maintain a general survey of the aircraft operation by appropriate supervision	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	Medium

Conduct PFD malfunction procedure (AGM 1 or DU1)		Can demonstrate good judgement and airmanship	Medium
Conduct Powerplant Start	Can ensure the ground safety procedures are followed during the before-start, start, and after- start phase		High
Conduct Powerplant Start	Can coordinate with crew and complete the appropriate checklist(s) prior to and after powerplant start.		High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing malfunctions during powerplant start	High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing turbine powerplant safety	High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing managing situations where specific instructions or checklist items are not published	High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing personnel,	High

		vehicles, vessels, foreign object debris, and other aircraft in the vicinity during powerplant start	
Conduct Precision Approach	Can perform appropriate normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures		Medium
Conduct Precision Approach	Can perform procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.		Medium

Conduct Precision Approach		Can appreciate constraints for head winds, tail winds, crosswinds, and the effect of vertical and horizontal wind shear on automatic systems, flight directors (F/D), or other system (e.g., HUD, SVGS, etc.) performance. For systems such as HUDs that have a limited field of view (FOV), or synthetic reference systems, pilots should be familiar with the display limitations of these systems and expected pilot actions in the event that the aircraft reaches or exceeds a display limit capability.	Medium
Conduct Precision Approach	Can execute types of instrument procedures approved for the air carrier (standard and special, lowest straight-in, or circling minima, if applicable); according to the operator's manuals, charts and checklists, on the		Medium

	aircraft type, model and series flown.		
Conduct Precision Approach	Can use flight guidance and/or visual system(s) and their corresponding category(s) of minima for each authorized system;		Medium
Conduct Precision Approach	Can use NAVAID(s) and visual aids used (LVO/SMGCS lighting if applicable);		Medium
Conduct Precision Approach	Can apply Flightcrew procedures used (e.g., PF/PM duties, monitored approach, or call-outs);		Medium
Conduct Precision Approach		Can demonstrate familiarization with airport and runway characteristics typically experienced;	Medium
Conduct Precision Approach	Can perform relevant normal, non-normal, and environmental conditions. Training and evaluation need only be conducted using relevant and representative procedures and conditions (e.g., a representative mix of day, night, dusk, variable/patchy conditions, representative temperatures, landing		Medium

	runway altitudes, precipitation conditions, turbulence, and icing conditions); and		
Conduct Precision Approach	Can respond appropriately to aircraft and ground system failures.		Medium
Conduct Precision Approach	Can perform the precision instrument approaches selected by the instructor/evaluator.		Medium
Conduct Precision Approach	Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		Medium
Conduct Precision Approach	Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		Medium
Conduct Precision Approach	Can comply in a timely manner with all clearances, instructions, and procedures.		Medium
Conduct Precision Approach	Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		Medium

Conduct Precision Approach	Can coordinate with ATC if unable to comply with a clearance.		Medium
Conduct Precision Approach	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		Medium
Conduct Precision Approach	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		Medium
Conduct Precision Approach	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		Medium
Conduct Precision Approach	Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		Medium

Conduct Precision Approach	Can maintain a stabilized final approach from the Final Approach Fix (FAF) to DA/DH allowing no more than ¼-scale deflection of either the vertical or lateral guidance indications and maintain the desired airspeed ±5 knots		Medium
Conduct Precision Approach	Can immediately initiate the missed approach procedures if the required visual references for the runway are not distinctly visible and identifiable upon reaching the DA/DH.		Medium
Conduct Precision Approach	Can, upon reaching the DA/DH, perform a transition to a normal landing when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering		Medium
Conduct Precision Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		Medium

Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to follow the correct approach procedure (e.g., descending below the glideslope, etc.).	Medium
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing selecting an incorrect navigation frequency.	Medium
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	Medium
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	Medium
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing an unstable approach, including	Medium

		excessive descent rates.	
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing deteriorating weather conditions on approach.	Medium
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing continuing to descend below the Decision Altitude (DA)/Decision Height (DH) when the required visual references are not visible.	Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify currency and integrity of aircraft navigation data		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and	Can obtain a receiver autonomous integrity monitoring (RAIM) prediction for the planned RNP operation		Medium

in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify successful completion of RNP system self-tests;		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform initialization navigation system position		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt	Can perform retrieval of an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		Medium

ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can execute an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform adherence to speed and/or altitude constraints associated with RNP operations		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for	Can select the appropriate STAR or SID for the active runway in use and be familiar with procedures to deal with a runway change		Medium

RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify waypoints and flight plan programming;		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform a manual or automatic runway update (with takeoff point shift for Inertial Reference Units (IRU) only);		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying direct to a waypoint		Medium

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying a course/track to a waypoint		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform interception of a course/track		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform selecting/arming the navigation system for an ILS or GLS transition		Medium
Conduct RNP operations in the United	Can perform insertion and deletion of a route discontinuity;		Medium

States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can confirm exclusion of a specific navigation aid or navigation aid type (distance measuring equipment (DME) and very high frequency omni-directional range (VOR) only);		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify the RNP value set in the flight management system (FMS) matches the equipment capability and authorizations as annotated in the flight plan		Medium
Conduct use of FMS	Can perform use of the automatic throttle, flight management computer, or other speed management system, if applicable.		Medium

Conduct use of FMS		Can manage the risk of errors when receiving a change to assigned routing by ensuring the waypoints sequence depicted by their navigation system matches the route depicted on the appropriate chart(s) and their assigned route	High
Conduct use of FMS	Can verify currency of aircraft navigation data.		High
Conduct use of FMS	Can perform flying a course/track to a waypoint.		Medium
Conduct use of FMS	Can perform interception of a course/track		Medium
Conduct use of FMS	Can comply with a vectored off and execute rejoining a procedure.		Medium
Conduct use of FMS	Can determine cross-track error/deviation		Medium
Conduct use of FMS	Can execute insertion and deletion of a route discontinuity		Medium
Conduct use of FMS	Can execute removal and reselection of navigation sensor inputs.		High
Conduct use of FMS	Can confirm exclusion of a specific navigation aid or navigation aid type.		High
Conduct use of FMS	Can execute insertion and deletion of a lateral offset		Medium

Conduct use of FMS	Can execute a change of the arrival airport and alternate airport		Medium
Conduct use of FMS	Can verify successful completion of RNAV system self-tests		High
Conduct use of FMS	Can execute initialization of RNAV system position		High
Conduct use of FMS	Can execute retrieval and flying of a DP or STAR with appropriate transition		High
Conduct use of FMS	Can comply with speed and/or altitude constraints associated with a DP or STAR.		Medium
Conduct use of FMS	Can execute making a runway change associated with a DP or STAR		Medium
Conduct use of FMS	Can verify waypoints and flight plan programming		High
Conduct use of FMS	Can perform a manual or automatic runway update (with takeoff point shift, if applicable)		Medium
Conduct use of FMS	Can perform flying direct to a waypoint		Medium
Conduct use of FMS	Can perform a complex SID consisting of multiple altitude and speed constraints		Medium
Conduct use of FMS	Can perform a complex STAR consisting of multiple altitude and speed constraints		Medium
Conduct use of FMS	Can demonstrate general awareness of		Medium

	all three styles of flight director		
Conduct use of FMS	Can identify symbology available in synthetic vision system		Medium
Conduct use of FMS	Can differentiate between conformal and non-conformal scaling in the HUD and synthetic vision		Medium
Conduct use of FMS	Can use the cursor control device effectively		High
Conduct use of TCAS	Can demonstrate the proper use of controls including aircraft configuration required to initiate a self-test.		High
Conduct use of TCAS	Can demonstrate the proper use of controls including steps required to initiate a self-test.		High
Conduct use of TCAS	Can demonstrate the proper use of controls including recognizing when the self-test was successful and when it was unsuccessful. When the self-test is unsuccessful, recognizing the reason for the failure, and if possible, correcting the problem.		High
Understand Avionics and communicatio ns - communicatio n systems (e.g., data link,		Can identify, assess, and manage risks encompassing failure to detect system	High

UHF/VHF/HF, satellite)		malfunctions or failures.	
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	Medium
Understand Avionics and communications - Electronic Flight Instrument		Can identify, assess, and manage risks encompassing failure to follow appropriate	Medium

Systems (EFIS)		checklists or procedures	
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing improper management of a system failure	Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	Medium
Understand Avionics and communications - indicating devices	Can interpret flight path vector symbology as it relates to the PFD and HUD, both caged and uncaged		Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - Inertial Navigation Systems (INS)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - Inertial		Can identify, assess, and manage risks encompassing	High

Navigation Systems (INS)		improper management of a system failure	
Understand Avionics and communications - Inertial Navigation Systems (INS)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can apply monitoring procedures for each phase of flight (e.g., monitor PROG or LEGS page)		Medium
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can demonstrate familiarization with automatic and/or manual setting of the required RNP value		Medium

Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can demonstrate familiarization with the navigation equipment regarding lateral and vertical capture from an RNP routing to an instrument landing system (ILS) or Ground Based Augmentation System (GBAS) Landing System (GLS)		Medium
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can demonstrate how offsets are applied, the functionality of their particular navigation system and the need to advise air traffic control (ATC) if this functionality is not available		Medium
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign	Can apply receiver/transmitter (R/T) phraseology for RNP applications		Medium

countries which adopt ICAO standards for RNP operations.			
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining		Can identify, assess, and	Medium

takeoff performance (e.g., balance field length, VMCG) per AFM		manage risks encompassing runway excursions	
Understand determining accelerate-stop / accelerate-go distance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining accelerate-stop		Can identify, assess, and manage risks	Medium

/ accelerate-go distance per AFM		encompassing runway excursions	
Understand determining accelerate-stop / accelerate-go distance per AFM		Can appreciate that take off distance numbers provided by the AFM are the most restrictive result of numerous part 25 requirements	Medium
Understand determining climb performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and	Medium

		stall warning, and runway excursions	
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining		Can identify, assess, and	Medium

cruise performance (e.g., optimum and maximum operating altitudes) per AFM		manage risks encompassing runway excursions	
Understand determining descent performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining		Can identify, assess, and	Medium

descent performance per AFM		manage risks encompassing runway excursions	
Understand determining fuel requirements per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining fuel requirements per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and	Medium

		actual performance	
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining weight and balance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining weight and balance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand OEM checklist philosophy		Can appreciate that while there are no defined memory items in the AFM, pilots should still be familiar enough with the aircraft	Medium

		to be able to perform initial and critical items without first referencing associated documentation. In addition, pilots are expected to don oxygen masks promptly when appropriate (e.g., when smoke is detected).	
Understand OEM checklist philosophy		Can appreciate that abnormal and emergency procedures are presented in quick reference handbooks (QRH) of an identical format for all three aircraft. Although some individual steps may differ or use different acronyms, these steps are carried out under the guidance of the handbook in a logical decision-making manner	Medium

SIM 1 Tasks and Expectations

Tasks	Motor Skill Learning Objectives	Attitude Learning Objectives	Task Expectation Rating
Understand determining landing		Can identify, assess, and manage risks	Medium

performance per AFM		encompassing Inaccurate use of performance charts, tables, and data	
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	Medium
Conduct after landing, parking and securing	Can demonstrate runway incursion avoidance procedures.		Medium
Conduct after landing, parking and securing	Can comply with ATC instructions and perform radio calls as appropriate.		Medium
Conduct after landing, parking and securing	Can coordinate with crew, if applicable, and execute the appropriate checklist(s) after clearing the runway.		Medium

Conduct after landing, parking and securing	Can perform parking in the appropriate area, considering the safety of nearby persons and property.		Medium
Conduct after landing, parking and securing	Can execute a postflight inspection and document discrepancies and servicing requirements, if any.		Medium
Conduct after landing, parking and securing	Can perform securing the airplane.		Medium
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions.	Medium
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions.	Medium
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing propeller, turbofan inlet, and exhaust safety.	Medium
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing airport specific security procedures.	Medium
Conduct after landing, parking and securing		Can identify, assess, and manage risks,	Medium

		encompassing disembarking passengers.	
Conduct Arrival Procedures		Can manage the risk of errors when assigned a STAR and subsequently receives a change of landing runway, procedure or transition by verifying the appropriate changes are entered and available for navigation	Medium
Conduct Arrival Procedures	Can select, identify and use the appropriate communication and navigation facilities associated with the arrival		Medium
Conduct Arrival Procedures	Can perform setup of FMS and avionics to include flight director and autopilot controls for the arrival, if applicable		Medium
Conduct Arrival Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		Medium
Conduct Arrival Procedures	Can initiate two-way communications with the proper controlling agency		Medium
Conduct Arrival Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		Medium
Conduct Arrival Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		Medium

Conduct Arrival Procedures	Can comply with all applicable charted procedures		Medium
Conduct Arrival Procedures	Can comply with airspeed restrictions required by regulation, procedure, aircraft limitation or ATC		Medium
Conduct Arrival Procedures	Can maintain rate of descent consistent with the route segment, airplane operating characteristics and safety		Medium
Conduct Arrival Procedures	Can maintain the appropriate airspeed/V-speed ±10 knots, but not less than VRef if applicable, heading ±10°, altitude ±100 feet, and accurately track radials, courses, and bearings		Medium
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures.	Medium
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to recognize limitations of traffic avoidance equipment.	Medium
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to use see and avoid techniques when possible.	Medium

Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing improper automation management.	Medium
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing ATC instructions that modify an arrival or discontinue/resume the aircraft's lateral or vertical navigation on an arrival.	Medium
Conduct Before Takeoff Checks		Can manage the risk of errors when assigned an RNAV DP and subsequently receives a change of runway, procedure or transition by verifying the appropriate changes are entered and available for navigation prior to takeoff.	Medium
Conduct Before Takeoff Checks	Can determine the airplane's takeoff performance for actual conditions and planned departure runway		Medium

Conduct Before Takeoff Checks	Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		Medium
Conduct Before Takeoff Checks	Can confirm all systems checked are within an acceptable operating range and are safe for the proposed flight		Medium
Conduct Before Takeoff Checks	Can explain any system operating characteristic or limitation and any corrective action for a malfunction during the checks		Medium
Conduct Before Takeoff Checks	Can determine airspeeds/V-speeds and set flight instruments appropriately		Medium
Conduct Before Takeoff Checks	Can use flight director and autopilot controls for the current flight conditions and takeoff and departure clearances		Medium
Conduct Before Takeoff Checks	Can perform configuration of navigation equipment for takeoff and departure clearances		Medium
Conduct Before Takeoff Checks	Can configure communication equipment for takeoff and departure clearances		Medium
Conduct Before Takeoff Checks	Can obtain and correctly interpret the takeoff and departure clearance		Medium
Conduct Before Takeoff Checks	Can conduct a briefing that includes procedures for emergency and abnormal situations (e.g., powerplant failure, windshear), which may be encountered during takeoff, and state the planned action if they were to occur		Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing division of attention while	Medium

		conducting before takeoff checks	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing an unexpected change in the runway to be used for departure	Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to verify performance data is correct and airspeeds and flight instruments are set for actual conditions and the departure runway	Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to set navigation and communication equipment for departure	Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to configure autopilot and flight director	Medium

		controls for departure	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to account for adverse weather conditions prior to takeoff (e.g., snow, ice, gusting crosswinds, low-visibility)	Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing A powerplant failure during takeoff or other malfunction considering operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions	Medium
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	Medium

Conduct Clean Configuration Stall prevention	Can maintain coordinated flight in simulated or actual instrument conditions throughout the maneuver		Medium
Conduct Clean Configuration Stall prevention	Can perform smooth adjustment of pitch attitude, bank angle (15°-30°), and power setting either manually or with the autopilot engaged		Medium
Conduct Clean Configuration Stall prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		Medium
Conduct Clean Configuration Stall prevention	Can execute a stall recovery in accordance with procedures set forth in the POH/AFM		Medium
Conduct Clean Configuration Stall prevention	Can execute a return to the desired flight path		Medium
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing factors and situations that could lead to an inadvertent stall, spin, and loss of control during cruise flight	Medium
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing range and limitations of stall warning indicators (e.g., aircraft buffet, stall horn, stick shaker, etc.)	Medium

Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing failure to recognize and recover at the stall warning	Medium
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing improper stall recovery procedure	Medium
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing secondary stalls, accelerated stalls, elevator trim stalls, and cross-control stalls	Medium
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing effect of environmental elements on aircraft performance while in cruise flight as it relates to stalls (e.g., turbulence, microbursts, and high-density altitude)	Medium

Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing distractions, loss of situational awareness, or improper task management	Medium
Conduct Departure Procedures	Can select the appropriate instrument departure procedure.		Medium
Conduct Departure Procedures	Can select, identify and use the appropriate communication facilities associated with the procedure		Medium
Conduct Departure Procedures	Can select, identify and use the appropriate navigation facilities associated with the procedure		Medium
Conduct Departure Procedures	Can perform programming the FMS prior to departure and execute avionics setup of flight director and autopilot controls for the departure		Medium
Conduct Departure Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		Medium
Conduct Departure Procedures	Can initiate two-way communications with the proper controlling agency		Medium
Conduct Departure Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		Medium
Conduct Departure Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		Medium
Conduct Departure Procedures	Can comply with all applicable charted procedures		Medium

Conduct Departure Procedures	Can maintain the appropriate airspeed ±10 knots, headings ±10°, and altitude ±100 feet, and accurately track a course, radial, or bearing		Medium
Conduct Departure Procedures	Can execute the departure phase to a point where the transition to the en route environment is complete		Medium
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures and required climb gradients	Medium
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing limitations of air traffic avoidance equipment and use of see and avoid techniques	Medium
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing improper automation management	Medium

Conduct EFVS Operations		When using the EFVS, can demonstrate familiarization with the interpretation of the display to ensure proper identification of the runway and positioning of the aircraft relative to continuation of the approach to landing. Pilots should understand the limitations of these systems, operational credits available, and authorization required for use. For more information on EFVS, refer to AC 90-106.	Low
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can coordinate with crew and execute the appropriate checklist(s) in a timely manner		Medium
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can perform communication with ATC and the evaluator, as appropriate for the situation.		Medium

Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	Medium
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	Medium
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	Medium
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Medium
Conduct Go-Around/Rejected Landing	Can describe, perform airborne system use for go-around, including consideration of height loss during transition to a go-around, performance assurance for obstacle clearance, management of any necessary mode changes, and		Medium

	assurance of appropriate vertical and lateral flightpath tracking.		
Conduct Go-Around/Rejected Landing	Can initiate a timely decision to go-around/reject the landing.		Medium
Conduct Go-Around/Rejected Landing	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		Medium
Conduct Go-Around/Rejected Landing	Can perform establishing a positive rate of climb and the appropriate airspeed/V-speed, ±5 knots.		Medium
Conduct Go-Around/Rejected Landing	Can execute configuration and trimming of the airplane, when appropriate.		Medium
Conduct Go-Around/Rejected Landing	Can perform radio calls as appropriate		Medium
Conduct Go-Around/Rejected Landing	Can maintain the ground track, heading, or course appropriate for the conditions, or as specified by ATC.		Medium
Conduct Go-Around/Rejected Landing	Can execute the appropriate procedures and checklist(s) in a timely manner.		Medium
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing delayed recognition of the need for a go-around/rejected landing.	Medium
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing	Medium

		delayed performance of a go-around at low altitude.	
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing improper application of power.	Medium
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing improper airplane configuration.	Medium
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires vessels, vessels, persons, and wildlife.	Medium
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing distractions,	Medium

		loss of situational awareness, or improper task management.	
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing managing a go-around/rejected landing after accepting a LAHSO clearance.	Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can execute use of LNAV mode(s).		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can execute use of VNAV mode(s).		Medium

Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can apply ATC procedures/phraseology		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can apply functionality of vector to final mode		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can perform the use of navigation systems including procedure selection and ILS look-alike principle:		Medium

Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can perform flying of a procedure		Medium
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can perform setup and interpretation of electronic displays and symbols.		Medium
Conduct Interior and exterior preflight		Can identify, assess, and manage risks encompassing Inoperative equipment discovered prior to flight.	High
Conduct Interior and exterior preflight		Can identify, assess, and manage risks encompassing external pressures and Aviation security concerns.	High

Conduct Landing Configuration Stall Prevention	Can perform smooth adjustment of pitch attitude, bank angle (15°-30°), and power setting either manually or with the autopilot engaged		Medium
Conduct Landing Configuration Stall Prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		Medium
Conduct Landing Configuration Stall Prevention	Can perform establishment of the landing configuration (i.e., lift/drag devices set and landing gear extended) and maintain coordinated flight in simulated or actual instrument conditions throughout the maneuver		Medium
Conduct Landing Configuration Stall Prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		Medium
Conduct Landing Configuration Stall Prevention	Can execute a stall recovery in accordance with procedures set forth in the POH/AFM		Medium
Conduct Landing Configuration Stall Prevention	Can execute retraction of the flaps or other lift/drag devices to the recommended setting, retract the landing gear after a positive rate of climb is established and return to the desired flight path		Medium
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing factors and situations that could lead to an inadvertent stall, spin, and loss of control during landing	Medium

Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing range and limitations of stall warning indicators (e.g., aircraft buffet, stall horn, stick shaker, etc.)	Medium
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing failure to recognize and recover at the stall warning	Medium
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing improper stall recovery procedure	Medium
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing secondary stalls, accelerated stalls, elevator trim stalls, and cross-control stalls	Medium
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing the effect of environmental elements on	Medium

		aircraft performance while landing as it relates to stalls (e.g., turbulence, icing, microbursts, and high-density altitude)	
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing stalls at a low altitude	Medium
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing distractions, loss of situational awareness, or improper task management	Medium
Conduct Landing from a Precision Approach	Can perform proper reaction to significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH. Expected pilot response to failure after touchdown should be addressed as well.		Medium
Conduct Landing from a Precision Approach	Can recognize and execute appropriate actions in response to ground or navigation system faults, failures or abnormalities at any point during the approach and landing.		Medium

Conduct Landing from a Precision Approach		Can appreciate that pilots should be familiar with the need to report navigation system anomalies or discrepancies, failures of any lighting system (e.g., approach lights, runway lights, touchdown zone (TDZ) lights, centerline lights), or any other discrepancies that could be pertinent to operations.	Medium
Conduct Landing from a Precision Approach		Can demonstrate familiarization with operator's policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as	Medium

		directional control or stopping performance is concerned, and flight crews should be familiar with appropriate constraints related to braking reports and the obscuration of appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway contaminants and condition reporting.	
Conduct Landing from a Precision Approach	Can maintain the desired airspeed, ±5 knots, and vertical and lateral guidance within ¼-scale deflection of the indicators during the descent from DA/DH to a point where visual maneuvering is used to accomplish a normal landing.		Medium
Conduct Landing from a Precision Approach	Can comply with all ATC advisories, such as NOTAMs, windshear, wake turbulence, runway surface, braking conditions, and other operational considerations.		Medium
Conduct Landing from a Precision Approach	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500		Medium

	feet from the approach threshold of the runway		
Conduct Landing from a Precision Approach	Can maintain positive airplane control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		Medium
Conduct Landing from a Precision Approach	Can demonstrate SRM or CRM, as appropriate.		Medium
Conduct Landing from a Precision Approach	Can apply runway incursion avoidance procedures.		Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing selection of an approach procedure and runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing wake turbulence.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for	Medium

		missed approach	
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for land and hold short operations (LAHSO)	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for distractions, loss of situational awareness, or	Medium

		improper task management.	
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for attempting to land from an unstable approach.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for flying below the glidepath.	Medium
Conduct Landing from a Precision Approach		Can identify, assess, and manage risks, encompassing planning for transitioning from instrument to visual references for landing.	Medium
Conduct Missed Approach	Can execute a missed approach from the MDA, DA/DH, or AH.		Medium
Conduct Missed Approach	Can execute a missed approach from a low altitude that could result in a touchdown during go-around (balked or rejected landing).		Medium
Conduct Missed Approach	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		Medium

Conduct Missed Approach	Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and initiate a positive rate of climb at the appropriate airspeed/V- speed, ±5 knots.		Medium
Conduct Missed Approach	Can coordinate with crew and execute the appropriate procedures and checklist(s) in a timely manner.		Medium
Conduct Missed Approach	Can comply with the published or alternate missed approach procedure.		Medium
Conduct Missed Approach	Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		Medium
Conduct Missed Approach	Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure.		Medium
Conduct Missed Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		Medium
Conduct Missed Approach	Can demonstrate effective CRM		Medium
Conduct Missed Approach	Can execute re-engagement of the autopilot at appropriate times during the missed approach procedure.		Medium
Conduct Missed Approach	Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix, or other clearance limit, as appropriate, or as directed by the evaluator.		Medium
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to	Medium

		follow prescribed procedures.	
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing holding, diverting, or electing to fly the approach again.	Medium
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	Medium
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing factors that might lead to executing a missed approach procedure before the MAP or to a go-around below DA/MDA.	Medium
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to manage	Medium

		automated navigation and auto flight systems.	
Conduct Normal Approach and Landing	Can execute normal landings at the lowest applicable minima for each authorized flight guidance and/or visual system.		Medium
Conduct Normal Approach and Landing	Can perform manual rollout in low visibility at applicable minima. (except for aircraft using an automatic fail operational (FO) rollout system)		Medium
Conduct Normal Approach and Landing	Can perform landings at the limiting environmental conditions authorized for that operator with respect to wind, crosswind components, and runway surface friction characteristics		Medium
Conduct Normal Approach and Landing	Can coordinate with crew and execute after landing checklists(s).		Medium
Conduct Normal Approach and Landing	Can perform radio calls as appropriate		Medium
Conduct Normal Approach and Landing	Can maintain a ground track that ensures the desired traffic pattern will be flown taking into consideration obstructions and ATC		Medium
Conduct Normal Approach and Landing	Can confirm the airplane is aligned with the correct/assigned runway or landing surface.		Medium
Conduct Normal Approach and Landing	Can scan runway or landing surface and adjoining area for traffic and obstructions.		Medium
Conduct Normal Approach and Landing	Can select a suitable touchdown point considering wind, landing surface, and obstructions.		Medium

Conduct Normal Approach and Landing	Can perform establishing the recommended approach and landing configuration and airspeed, ±5 knots, and adjust pitch attitude and power as required to maintain a stabilized approach.		Medium
Conduct Normal Approach and Landing	Can maintain directional control and appropriate crosswind correction throughout the approach and landing.		Medium
Conduct Normal Approach and Landing	Can perform smooth, timely, and correct control application before, during, and after touchdown.		Medium
Conduct Normal Approach and Landing	Can execute touch down with the runway centerline between the main landing gear at the appropriate speed and pitch attitude at the runway aiming point markings -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		Medium
Conduct Normal Approach and Landing	Can execute deceleration to taxi speed (20 knots or less on dry pavement, 10 knots or less on contaminated pavement) to within the calculated landing distance plus 25% for the actual conditions with the runway centerline between the main landing gear		Medium
Conduct Normal Approach and Landing	Can execute a timely go-around if the approach cannot be made within the tolerances specified above or for any other condition that may result in an unsafe approach or landing.		Medium
Conduct Normal Approach and Landing	Can apply runway incursion avoidance procedures.		Medium

Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing selection of a runway or approach path and touchdown area-based aircraft limitations, available distance, surface conditions, and wind.	Medium
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing wake turbulence.	Medium
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing Go-Around/Rejected Landing	Medium
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing land and Hold Short Operations (LAHSO)	Medium
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft,	Medium

		terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, incorrect airport surface approach and landing, or improper task management.	Medium
Conduct Normal Takeoff and Climb	Can perform takeoff in limiting crosswinds, winds, gusts, and runway surface friction to levels authorized. Training should be done at weights or on runways that represent a critical field length		High
Conduct Normal Takeoff and Climb	Can coordinate with crew and complete the appropriate checklist(s) prior to takeoff in a timely manner		High
Conduct Normal Takeoff and Climb	Can perform radio calls as appropriate		High
Conduct Normal Takeoff and Climb	Can verify assigned/correct runway		High

Conduct Normal Takeoff and Climb	Can verify the airplane is configured for takeoff		High
Conduct Normal Takeoff and Climb	Can execute clearing of the area and taxi into takeoff position and align the airplane on the runway centerline		High
Conduct Normal Takeoff and Climb	Can maintain centerline and proper flight control inputs during the takeoff roll		High
Conduct Normal Takeoff and Climb	Can confirm takeoff power and proper engine and flight instrument indications prior to rotation and perform callouts as appropriate, for the airplane or per the operator's procedures		High
Conduct Normal Takeoff and Climb	Can perform rotation and lift off at the recommended airspeed		High
Conduct Normal Takeoff and Climb	Can maintain a power setting and a pitch attitude to maintain the desired climb airspeed/V-speed, ±5 knots for each climb segment		High
Conduct Normal Takeoff and Climb	Can maintain desired heading ±5°		High
Conduct Normal Takeoff and Climb	Can perform Retraction of the landing gear and flaps in accordance with manufacturer or operator procedures and limitations, as appropriate		High
Conduct Normal Takeoff and Climb	Can perform wake turbulence avoidance		High
Conduct Normal Takeoff and Climb	Can follow noise abatement procedures		High
Conduct Normal Takeoff and Climb	Can execute appropriate after-takeoff checklist(s) in a timely manner		High
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing selection of a runway, or runway	High

		intersection aircraft limitations, available distance, surface conditions, and wind	
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing wake turbulence	High
Conduct Normal Takeoff and Climb		Can demonstrate proper planning for rejected takeoff	High
Conduct Normal Takeoff and Climb		Can demonstrate proper planning for engine failure in takeoff phase of flight	High
Conduct Normal Takeoff and Climb		Can demonstrate proper planning for engine failure in climb phase of flight	High
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing improper aircraft configuration or settings (e.g., trim, flaps,	High

		autobrakes, etc.)	
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife	High
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management	High
Conduct Partial Flap Configuration Stall Prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		Medium
Conduct Partial Flap Configuration Stall Prevention	Can execute a stall recovery in accordance with procedures set forth in the POH/AFM		Medium
Conduct Partial Flap Configuration Stall Prevention	Can execute retraction of the flaps or other lift/drag devices to the recommended setting, retract the landing gear after a positive rate of climb is established, and return to the desired flight path		Medium

Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing factors and situations that could lead to an inadvertent stall and loss of control during takeoff or while on approach	Medium
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing range and limitations of stall warning indicators (e.g., aircraft buffet, stall horn, stick shaker, etc.)	Medium
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing failure to recognize and recover at the stall warning	Medium
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing improper stall recovery procedure	Medium
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing secondary	Medium

		stalls, accelerated stalls, elevator trim stalls, and cross-control stalls	
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing the effect of environmental elements on aircraft performance while in a partial flap configuration as it relates to stalls (e.g., turbulence, microbursts, and high-density altitude)	Medium
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can execute procedure with smoothness and accuracy		Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can operate the airplane within its limitations		Medium

Conduct PFD malfunction procedure (AGM 1 or DU1)	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can apply aeronautical knowledge to execution of the task	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can apply crew coordination	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can conduct effective communication with the other crew members	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can manage crew cooperation	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can maintain a general survey of the aircraft operation by appropriate supervision	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	Medium
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can demonstrate good	Medium

		judgement and airmanship	
Conduct Powerplant Start	Can ensure the ground safety procedures are followed during the before-start, start, and after- start phase		High
Conduct Powerplant Start	Can coordinate with crew and complete the appropriate checklist(s) prior to and after powerplant start.		High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing malfunctions during powerplant start	High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing turbine powerplant safety	High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing managing situations where specific instructions or checklist items are not published	High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing personnel, vehicles, vessels, foreign object debris, and	High

		other aircraft in the vicinity during powerplant start	
Conduct Precision Approach	Can perform appropriate normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures		Medium
Conduct Precision Approach	Can perform procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.		Medium
Conduct Precision Approach		Can appreciate constraints for head winds, tail winds, crosswinds, and the effect of vertical and horizontal wind shear on automatic systems, flight directors (F/D), or other system (e.g., HUD, SVGS, etc.) performance. For systems	Medium

		such as HUDs that have a limited field of view (FOV), or synthetic reference systems, pilots should be familiar with the display limitations of these systems and expected pilot actions in the event that the aircraft reaches or exceeds a display limit capability.	
Conduct Precision Approach	Can execute types of instrument procedures approved for the air carrier (standard and special, lowest straight-in, or circling minima, if applicable); according to the operator's manuals, charts and checklists, on the aircraft type, model and series flown.		Medium
Conduct Precision Approach	Can use flight guidance and/or visual system(s) and their corresponding category(s) of minima for each authorized system;		Medium
Conduct Precision Approach	Can use NAVAID(s) and visual aids used (LVO/SMGCS lighting if applicable);		Medium
Conduct Precision Approach	Can apply Flightcrew procedures used (e.g., PF/PM duties, monitored approach, or call-outs);		Medium
Conduct Precision Approach		Can demonstrate familiarization	Medium

		with airport and runway characteristics typically experienced;	
Conduct Precision Approach	Can perform relevant normal, non-normal, and environmental conditions. Training and evaluation need only be conducted using relevant and representative procedures and conditions (e.g., a representative mix of day, night, dusk, variable/patchy conditions, representative temperatures, landing runway altitudes, precipitation conditions, turbulence, and icing conditions); and		Medium
Conduct Precision Approach	Can respond appropriately to aircraft and ground system failures.		Medium
Conduct Precision Approach	Can perform the precision instrument approaches selected by the instructor/evaluator.		Medium
Conduct Precision Approach	Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		Medium
Conduct Precision Approach	Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		Medium
Conduct Precision Approach	Can comply in a timely manner with all clearances, instructions, and procedures.		Medium
Conduct Precision Approach	Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		Medium

Conduct Precision Approach	Can coordinate with ATC if unable to comply with a clearance.		Medium
Conduct Precision Approach	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		Medium
Conduct Precision Approach	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		Medium
Conduct Precision Approach	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		Medium
Conduct Precision Approach	Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		Medium
Conduct Precision Approach	Can maintain a stabilized final approach from the Final Approach Fix (FAF) to DA/DH allowing no more than ¼-scale deflection of either the vertical or lateral guidance indications and maintain the desired airspeed ±5 knots		Medium
Conduct Precision Approach	Can immediately initiate the missed approach procedures if the required visual references for the runway are not distinctly visible and		Medium

	identifiable upon reaching the DA/DH.		
Conduct Precision Approach	Can, upon reaching the DA/DH, perform a transition to a normal landing when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering		Medium
Conduct Precision Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		Medium
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to follow the correct approach procedure (e.g., descending below the glideslope, etc.).	Medium
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing selecting an incorrect navigation frequency.	Medium
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to	Medium

		manage automated navigation and auto flight systems.	
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	Medium
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing an unstable approach, including excessive descent rates.	Medium
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing deteriorating weather conditions on approach.	Medium
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing continuing to descend below the Decision Altitude (DA)/Decision Height (DH) when the	Medium

		required visual references are not visible.	
Conduct Recovery From Unusual Flight Attitudes	Can use instrument cross-check and interpretation to identify a nose low unusual attitude		Medium
Conduct Recovery From Unusual Flight Attitudes	Can use instrument cross-check and interpretation to identify a nose high unusual attitude		Medium
Conduct Recovery From Unusual Flight Attitudes	Can apply the appropriate pitch, bank, and power corrections, in the correct sequence, to return to a stabilized level flight attitude		Medium
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing situations that could lead to loss of control or unusual flight attitudes (e.g., stress, task saturation, and distractions).	Medium
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing exceeding the operating envelope during the recovery	Medium
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing failure to	Medium

		recognize an unusual flight attitude and follow the proper recover procedure	
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing exceeding the operating envelope during the recovery	Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify currency and integrity of aircraft navigation data		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can obtain a receiver autonomous integrity monitoring (RAIM) prediction for the planned RNP operation		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify successful completion of RNP system self-tests;		Medium

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform initialization navigation system position		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform retrieval of an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can execute an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform adherence to speed and/or altitude constraints associated with RNP operations		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace,	Can select the appropriate STAR or SID for the active runway in use and be familiar with procedures to deal with a runway change		Medium

and in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify waypoints and flight plan programming;		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform a manual or automatic runway update (with takeoff point shift for Inertial Reference Units (IRU) only);		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying direct to a waypoint		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying a course/track to a waypoint		Medium

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform interception of a course/track		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform selecting/arming the navigation system for an ILS or GLS transition		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform insertion and deletion of a route discontinuity;		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can confirm exclusion of a specific navigation aid or navigation aid type (distance measuring equipment (DME) and very high frequency omni-directional range (VOR) only);		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace,	Can verify the RNP value set in the flight management system (FMS) matches the equipment capability and		Medium

and in foreign countries which adopt ICAO standards for RNP operations.	authorizations as annotated in the flight plan		
Conduct Steep Turns	Can maintain the manufacturer's recommended airspeed; or if one is not available, an airspeed not to exceed VA		Medium
Conduct Steep Turns	Can maintain at least a 45° bank solely by reference to instruments and make a coordinated steep turn of at least 180°		Medium
Conduct Steep Turns	Can perform reversal of direction and establish at least a 45° bank solely by reference to instruments and make a coordinated steep turn of at least 180°		Medium
Conduct Steep Turns	Can perform smooth pitch, bank, and power adjustments as needed		Medium
Conduct Steep Turns	Can maintain the entry altitude ±100 feet, airspeed ±10 knots, bank ±5°, and roll out on the specified heading, ±10°		Medium
Conduct Steep Turns	Can maintain avoidance of any indications of impending stall, abnormal flight attitude, or exceedance of any structural or operating limitation		Medium
Conduct Steep Turns		Can identify, assess, and manage risks, encompassing spatial disorientation when conducting a steep turn while flying by reference to instruments	Medium

Conduct Steep Turns		Can identify, assess, and manage risks, encompassing failure to maintain coordinated flight	Medium
Conduct Steep Turns		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management	Medium
Conduct Taxi	Low visibility taxi and ground operations should be trained to the extent practical and beneficial. Such training should address operations at typical airports or alternately, at airports frequently experiencing low-visibility conditions, complex airports on the operator's route system, airports with particular low visibility ground movement difficulties, or rarely used but significant contingency airports, as determined appropriate by the operator.		Medium
Conduct Taxi	perform either PF or PM duties, unless otherwise limited by the operator's policies or aircraft characteristics (e.g., single HUD).		Medium
Conduct Taxi	Can record taxi instructions, respond to taxi clearances, and review taxi routes on the airport diagram.		Medium

Conduct Taxi	Can use an airport diagram or taxi chart during taxi		Medium
Conduct Taxi	Can comply with ATC clearances and instructions and observe all runway hold lines, ILS critical areas, beacons, and other airport/taxiway markings and lighting		Medium
Conduct Taxi	Can coordinate with crew, if applicable, and complete the appropriate checklist(s) prior to and during taxi		Medium
Conduct Taxi	Can maintain situational awareness during taxi		Medium
Conduct Taxi	Can maintain correct and positive airplane control, proper speed, appropriate use of wheel brakes and reverse thrust		Medium
Conduct Taxi	Can maintain separation between other aircraft, vehicles, and persons to avoid an incursion/incident/accident		Medium
Conduct Taxi	Can use aircraft exterior lighting for day and night operations		Medium
Conduct Taxi		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions	Medium
Conduct Taxi		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions	Medium
Conduct Taxi		Can identify, assess, and manage risks,	Medium

		encompassing a taxi route or departure runway change	
Conduct Taxi		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	Medium
Conduct Taxi		Can identify, assess, and manage risks, encompassing low visibility taxi operations	Medium
Conduct Taxi		Can conduct a briefing on the timing and execution of aircraft checklists and company communications at the appropriate times and locations, ensuring the pilot who is not taxiing the aircraft can be available to participate in verbal coordination with the pilot who is taxiing the aircraft	Medium
Conduct Taxi		Can consider the anticipated duration of the taxi operation, the locations	Medium

		of hot spots/complex intersections and runway crossings, and the visibility along the taxi route when briefing tasks or accomplishing checklists	
Conduct Taxi		Can manage pilot workload and heads-down time during taxi by conducting predeparture checklists, including setting the takeoff flap setting, when the aircraft is stopped or while taxiing straight ahead on a taxiway without complex intersections and hot spots	Medium
Conduct Taxi		Can maintain a sterile cockpit during taxi operations	Medium
Conduct Taxi	Can use airport diagram to follow progress of the taxi operation		Medium
Conduct Taxi		Can manage the risk of expectation bias, and follow the	Medium

		clearance or instructions that are actually received, and not the ones they expected to receive.	
Conduct Taxi		Can be alert to ATC instructions to hold short of an ILS critical area holding line.	Medium
Conduct Taxi		Can monitor the aircraft's progress on the airport diagram to ensure that the pilot taxiing the aircraft is following the instructions received from the ATC while maintaining outside vigilance	Medium
Conduct Taxi		Can determine whether or not to accept last-minute turnoff instructions from ATC, refusing such clearance unless the crew clearly understands the instructions and are certain that they can safely comply.	Medium

Conduct Taxi		Can respond to all hold short instructions, and verifies with other crew members or ATC to ensure agreement and understanding	Medium
Conduct Taxi	Can execute bringing the aircraft to a complete stop, or be in a phase of taxiing that has no risk of a runway incursion before continuing with operational duties and checklists		Medium
Conduct Taxi		Can comply with hold short or crossing clearance when approaching an entrance to a runway.	Medium
Conduct Taxi		Can explain or demonstrate proper actions if the crew becomes disoriented: never stop on a runway, and initiate communications with ATC to regain orientation.	Medium
Conduct Taxi		Can demonstrate vigilance when instructed to taxi and “Line Up and Wait”. Turns Traffic	Medium

		Alert and Collision Avoidance System (TCAS)/traffic advisory systems (TAS) on in order obtain awareness of any aircraft that may be landing on your runway.	
Conduct Taxi		Can resolve all misunderstandings or disagreements regarding taxi clearance to the satisfaction of all flightcrew members before taxiing the aircraft.	Medium
Conduct Taxi	Can apply use of the airport diagram after receiving a clearance, and confirms and verbalizes the assigned runway and taxi route, including any instructions to hold short of, or cross, a runway. If there is any doubt, speaks up and resolve the uncertainty before taxi		Medium
Conduct Taxi		Can coordinate with other flightcrew member(s) if stopping and resuming the monitoring of the ATC frequency, for example when	Medium

		it becomes necessary for a flightcrew member to stop monitoring any ATC frequency to prepare the aircraft for takeoff or landing.	
Conduct Taxi		Can assess any upcoming hold short instructions or clearances that could be misinterpreted prior to stopping and after resuming monitoring of the taxi. An example may include: “I’m heads-down, right turn ahead at Alpha,” or “I’m back, any changes?”	Medium
Conduct Taxi		Can appreciate that time away from monitoring ATC should be avoided with complex taxi routing or crossing of runways. Any instructions or information received or	Medium

		transmitted during that flightcrew member's absence from the ATC frequency should be reviewed and confirmed upon his or her return.	
Conduct Taxi		Can coordinate verbally at complex intersections to be sure that: the intersection is correctly identified and confirmed using the airport diagram and the heading indicator	Medium
Conduct Taxi		Can state "approaching (specific runway number) hold short line. Before crossing any hold short line, the flightcrew should visually scan to the left and to the right, including the full length of the runway and its approach	Medium

		paths, and coordinate verbally (e.g., “clear right/left” or that the scan area is not clear).	
Conduct Taxi		Can coordinate verbally and agree on the runway assigned by ATC, the upcoming assigned exit, and any restrictions, such as hold short points of an intersecting runway and the aircraft’s parking area after landing	Medium
Conduct Taxi	Can execute turning on the rotating beacon whenever an engine is running		Medium
Conduct Taxi	Can execute turning on navigation, position, anti-collision, and logo lights, if available, to signal intent to other pilots prior to commencing taxi		Medium
Conduct Taxi	Can execute turning on the taxi light when the aircraft is moving or intending to move on the ground, and turning it off when stopped or yielding or as a consideration to other pilots or ground personnel		Medium
Conduct Taxi	Can execute illuminating all lights when crossing a runway when appropriate		Medium

Conduct Taxi		Can consider any adverse effects to safety that illuminating the forward-facing lights will have on the vision of other pilots or ground personnel during runway crossings, and adjust operation accordingly	Medium
Conduct use of FMS	Can perform use of the automatic throttle, flight management computer, or other speed management system, if applicable.		Medium
Conduct use of FMS		Can manage the risk of errors when receiving a change to assigned routing by ensuring the waypoints sequence depicted by their navigation system matches the route depicted on the appropriate chart(s) and their assigned route	High
Conduct use of FMS	Can verify currency of aircraft navigation data.		High

Conduct use of FMS	Can perform flying a course/track to a waypoint.		Medium
Conduct use of FMS	Can perform interception of a course/track		Medium
Conduct use of FMS	Can comply with a vectored off and execute rejoining a procedure.		Medium
Conduct use of FMS	Can determine cross-track error/deviation		Medium
Conduct use of FMS	Can execute insertion and deletion of a route discontinuity		Medium
Conduct use of FMS	Can execute removal and reselection of navigation sensor inputs.		High
Conduct use of FMS	Can confirm exclusion of a specific navigation aid or navigation aid type.		High
Conduct use of FMS	Can execute insertion and deletion of a lateral offset		Medium
Conduct use of FMS	Can execute a change of the arrival airport and alternate airport		Medium
Conduct use of FMS	Can verify successful completion of RNAV system self-tests		High
Conduct use of FMS	Can execute initialization of RNAV system position		High
Conduct use of FMS	Can execute retrieval and flying of a DP or STAR with appropriate transition		High
Conduct use of FMS	Can comply with speed and/or altitude constraints associated with a DP or STAR.		Medium
Conduct use of FMS	Can execute making a runway change associated with a DP or STAR		Medium
Conduct use of FMS	Can verify waypoints and flight plan programming		High
Conduct use of FMS	Can perform a manual or automatic runway update (with takeoff point shift, if applicable)		Medium
Conduct use of FMS	Can perform flying direct to a waypoint		Medium

Conduct use of FMS	Can perform a complex SID consisting of multiple altitude and speed constraints		Medium
Conduct use of FMS	Can perform a complex STAR consisting of multiple altitude and speed constraints		Medium
Conduct use of FMS	Can demonstrate general awareness of all three styles of flight director		Medium
Conduct use of FMS	Can identify symbology available in synthetic vision system		Medium
Conduct use of FMS	Can differentiate between conformal and non-conformal scaling in the HUD and synthetic vision		Medium
Conduct use of FMS	Can use the cursor control device effectively		High
Conduct use of HUD	Conduct takeoff and departure using HUD to ATP ACS standards		Low
Conduct use of HUD	Conduct approach and landing using HUD to ATP ACS standards		Low
Conduct use of HUD	Can relate glidepath angle to the symbolic runway.		Low
Conduct use of HUD	Can use the flare symbol as a cue in the Honeywell HUD Model 2020 and as guidance in the HUD II.		Low
Conduct use of HUD	Can perform recovery from unusual attitudes using HUD		Medium
Conduct use of PlaneView System, if applicable	Can perform use of the PlaneView system installed in the full flight training equipment		Medium
Conduct use of TCAS	Can demonstrate the proper use of controls including aircraft configuration required to initiate a self-test.		High
Conduct use of TCAS	Can demonstrate the proper use of controls including steps required to initiate a self-test.		High

Conduct use of TCAS	Can demonstrate the proper use of controls including recognizing when the self-test was successful and when it was unsuccessful. When the self-test is unsuccessful, recognizing the reason for the failure, and if possible, correcting the problem.		High
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Understand Avionics and communications - autopilot		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - autopilot		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - autopilot		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - autopilot		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications -		Can identify, assess, and manage risks	High

communication systems (e.g., data link, UHF/VHF/HF, satellite)		encompassing failure to follow appropriate checklists or procedures	
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	Medium
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	Medium
Understand Avionics and communications - Electronic Flight		Can identify, assess, and manage risks encompassing improper	Medium

Instrument Systems (EFIS)		management of a system failure	
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	Medium
Understand Avionics and communications - Flight Management System (FMS)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - Flight Management System (FMS)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - Flight Management System (FMS)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - Flight Management System (FMS)		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Avionics and communications - Global Navigation Satellite System (GNSS)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - Global Navigation Satellite System (GNSS)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - Global Navigation Satellite System (GNSS)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - Global Navigation Satellite System (GNSS)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with		Can appreciate flightcrew contingency procedures for a loss of GPS and/or WAAS capability to emphasize	High

vertical guidance lines of minima using the wide area augmentation system		maintaining separation from terrain, obstacles and other aircraft.	
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system		Can appreciate impact of aircraft integrations that incorporate both (WAAS) LPV capability and baro-VNAV capability.	High
Understand Avionics and communications - ground-based navigation systems and components		Can appreciate that ground systems and NAVAIDs are considered to include characteristics of the airport, electronic navigation aids, lighting, markings, other systems (e.g., RVR), and any other relevant information necessary for safe AWO operations.	High
Understand Avionics and communications - ground-based navigation systems and components		Can appreciate the importance of checking that proper selections have been made to ensure	High

		appropriate system performance, and the sequence and management of any mode changes.	
Understand Avionics and communications - ground-based navigation systems and components		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - ground-based navigation systems and components		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - ground-based navigation systems and components		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - ground-based navigation systems and components		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and		Can identify, assess, and manage risks	High

communications - indicating devices		encompassing failure to detect system malfunctions or failures.	
Understand Avionics and communications - indicating devices		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - indicating devices		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - indicating devices		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - indicating devices	Can interpret flight path vector symbology as it relates to the PFD and HUD, both caged and uncaged		Medium
Understand Avionics and communications - Inertial Navigation Systems (INS)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Avionics and communications - Inertial Navigation Systems (INS)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - Inertial Navigation Systems (INS)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - Inertial Navigation Systems (INS)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can apply monitoring procedures for each phase of flight (e.g., monitor PROG or LEGS page)		Medium
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace,	Can demonstrate familiarization with automatic and/or manual setting of the required RNP value		Medium

and in foreign countries which adopt ICAO standards for RNP operations.			
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can demonstrate familiarization with the navigation equipment regarding lateral and vertical capture from an RNP routing to an instrument landing system (ILS) or Ground Based Augmentation System (GBAS) Landing System (GLS)		Medium
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can appreciate the importance of awareness of possible false vertical and lateral captures during a transition on an ILS capture	High
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can demonstrate how offsets are applied, the functionality of their particular navigation system and the need to advise air traffic control (ATC) if this functionality is not available		Medium
Understand Avionics and communications - RNP operations in	Can apply receiver/transmitter (R/T) phraseology for RNP applications		Medium

the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.			
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall	Medium

		warning, and Runway excursions	
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on	Medium

		performance and stall warning, and Runway excursions	
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining accelerate-stop / accelerate-go distance per AFM		Can appreciate that take off distance numbers provided by the AFM are the most restrictive result of numerous part 25 requirements	Medium
Understand determining climb performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing possible	Medium

		differences between calculated performance and actual performance	
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and runway excursions	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance	Medium

		and actual performance	
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining descent performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing possible differences	Medium

		between calculated performance and actual performance	
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining fuel requirements per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	Medium
Understand determining fuel requirements per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining performance with an inoperative powerplant for all		Can explain the adverse effects of exceeding an airplane	Medium

phases of flight per AFM		limitation or the airplane operating envelope.	
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	Medium
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing runway excursions	Medium
Understand determining weight		Can explain the adverse effects of	Medium

and balance per AFM		exceeding an airplane limitation or the airplane operating envelope.	
Understand determining weight and balance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	Medium
Understand Envelope protection—angle of attack warning and protection and speed protection		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Envelope protection—angle of attack warning and protection and speed protection		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Envelope protection—angle of attack warning and protection and speed protection		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Envelope protection—angle of attack warning and protection and speed protection		Can identify, assess, and manage risks encompassing failure to monitor and	High

		manage automated systems.	
Understand evacuation procedures and crew duties		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Lighting		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Lighting		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Lighting		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Lighting		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand OEM checklist philosophy		Can appreciate that while there are no defined memory items in the AFM, pilots should still be familiar enough with the aircraft to be able to perform initial and critical items without first referencing associated documentation. In addition, pilots are expected to don oxygen masks promptly when appropriate (e.g., when smoke is detected).	Medium
Understand OEM checklist philosophy		Can appreciate that abnormal and emergency procedures are presented in quick reference handbooks (QRH) of an identical format for all three aircraft. Although some	Medium

		individual steps may differ or use different acronyms, these steps are carried out under the guidance of the handbook in a logical decision-making manner	
Understand Powerplant - allowable types of oil		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - allowable types of oil		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Powerplant - allowable types of oil		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - allowable types of oil		Can identify, assess, and manage risks encompassing failure to monitor and	High

		manage automated systems.	
Conduct EFVS Operations	Per § 61.66(b)(2)(i) can integrate the following: it is necessary that the flight training curriculum includes preflight and in-flight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes, and associated systems, and adjustments for brightness and contrast under day and night conditions. It may be beneficial to perform these tasks in the curriculum using either the manufacturer's recommended procedures or procedures applicable to the operator.		Low
Conduct EFVS Operations	Per § 61.66(b)(2)(ii) can integrate the following: it is necessary that the flight training curriculum includes proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings. It may be beneficial for the curriculum to allow pilots to become familiar with the use of installed equipment such as an EFVS in all phases of flight.		Low
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can use a sample of approach types for the EFVS operation being trained (e.g., precision and nonprecision, if applicable).		Low

Conduct EFVS Operations	Per § 61.66(b)(2)(iv) can integrate the following: it is necessary that the flight training curriculum includes determining enhanced flight visibility. The curriculum can help pilots learn how to determine enhanced flight visibility using techniques and methods similar to the techniques and methods used for determining flight visibility when conducting an approach without an EFVS.		Low
Conduct EFVS Operations	Per § 61.66(b)(2)(v) can integrate the following: it is necessary that the flight training curriculum includes identifying required visual references appropriate to EFVS operations. The curriculum can help pilots learn how to identify required visual references using an EFVS with techniques and methods similar to the techniques and methods used for identifying the required visual references when conducting an approach without the use of an EFVS. The PM may use the PM display, if available, to assist the PF in this task.		Low

Conduct EFVS Operations	Per § 61.66(b)(2)(vi) can integrate the following: it is necessary that the flight training curriculum includes transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment. The curriculum can help pilots learn how to acquire visual references with natural vison at 100 feet during an EFVS-100 operation. There are many acceptable techniques for identifying the visual references with natural vision while the pilot continues using the EFVS to provide the enhanced flight visibility required for the operation.		Low
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) use procedures applicable to the PF and PM, crew briefings, procedures, callouts, and coordination items for EFVS operations, including annunciation of published minimums during operation below the DA/DH or MDA.		Low
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct procedures at 100 feet during an EFVS-100 operation.		Low
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct EFVS failure procedures (procedures for an EFVS failure or a system degradation during an EFVS operation).		Low
Conduct EFVS Operations	Can conduct preflight and inflight preparation of EFVS equipment for EFVS operations, including EFVS setup and use		Low

	of display, controls, modes and associated systems, and adjustments for brightness and contrast under day and night conditions.		
Conduct EFVS Operations	Can use proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings.		Low
Conduct EFVS Operations	Can use proper piloting techniques for the use of EFVS during instrument ap proaches, to include operations below DA/DH or MDA as applicable to the EFVS operations to be conducted, under both day and night conditions.		Low
Conduct EFVS Operations	Can determine enhanced flight visibility.		Low
Conduct EFVS Operations	Can identify required visual references appropriate to EFVS operations.		Low
Conduct EFVS Operations	Can adjust when transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment.		Low
Conduct EFVS Operations	Can conduct normal, abnormal, emergency, and crew coordination procedures when using an EFVS.		Low

Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include reducing AOA is the proper way to recover from a stall event. Pilots must accept that reducing the airplane's AOA will normally result in altitude loss. The amount of altitude loss will be affected by the airplane's operational environment (e.g., entry altitude, airplane weight, density altitude, bank angle, airplane configuration, etc.). At high altitudes, stall recovery will likely require losing several thousand feet.		Medium
Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include declaring an emergency if necessary. Do not delay recovery due to degrading airspeed or a stall event to obtain air traffic control (ATC) clearance to a lower altitude.		Medium
Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include understanding that early recognition and return of the airplane to a controlled and safe state are the most important factors in surviving stall events. Only after recovering to a safe maneuvering speed and AOA should the pilot focus on establishing an assigned heading, altitude, and airspeed.		Medium

Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include an abrupt pitch-up or trim change can occur when the autopilot unexpectedly disconnects during a stall event. This dramatic pitch-up or trim change typically adds an unexpected physical challenge to the pilot when trying to reduce AOA. In some airplanes, this may be aggravated by an additional pitch up when the pilot increases thrust during stall recovery.		Medium
Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include secondary stall warnings are indicative of a pilot prioritizing minimum loss of altitude over proper stall recovery or flight control inputs that are too aggressive. In some airplanes, depending on AOA representations, it may be difficult to determine the point where the pitch can begin to be increased and a momentary secondary stall warning may be encountered. A secondary stall warning is acceptable as long as AOA is promptly reduced and the airplane's limitations are not exceeded.		Medium

Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include air carriers should develop stall prevention evaluation strategies that are a direct reflection to the aircraft type. Between different aircraft types and variations of an aircraft type there is a broad range of available airspeed/AOA/energy information to the pilot. Therefore, an evaluation of a stall prevention with an attitude direction indicator (ADI) that has sufficient information to determine the flight envelope (pitch limit indicators, speed tape with low-speed awareness, airspeed trend needles) should be more stringent. Obviously with this expectation, the assumption is made that the air carrier's stall training prepares the pilot to interpret this information in low energy states. Conversely, a stall prevention evaluation of a pilot that has limited flight envelope information could allow momentary reactivations of the stall warning after the pilot has reduced the AOA to cease the stall warning and is attempting to return the aircraft to safe flight.		Medium
Conduct Stall Prevention and Recovery	Can recognize how changes to factors such as weight, G loading, CG, bank angle, altitude, and icing affect the handling characteristics and stall speeds of the airplane.		Medium

Conduct Stall Prevention and Recovery	Can appreciate inappropriate use or inadequate monitoring of autoflight modes can be a contributing factor to a stall event. For example, climbing in vertical speed can lead to a stall event when pilots do not notice the airspeed reducing as the altitude increases; whereas, climbing in modes such as indicated airspeed or flight level change can protect against unnoticed deceleration in a climb.		Medium
Conduct Stall Prevention and Recovery	Can recognize impending stall characteristics for the specific airplane, including buffeting of a severity that may make it difficult to read the instruments.		Medium
Conduct Stall Prevention and Recovery	Can recognize and review of AOA indicators (if installed) or interpretation of other representations of AOA such as pitch-limit indicators or speed display symbology that can assist in stall prevention.		Medium
Conduct Stall Prevention and Recovery	Can recognize noises associated with stick shakers, autopilot, and autothrottle/autothrust disconnect alarms can cause confusion in the cockpit.		Medium
Conduct Stall Prevention and Recovery	Can appreciate the effects of malfunctioning or deferred equipment on stall protection and stick pusher systems.		Medium
Conduct Stall Prevention and Recovery	Can differentiate between high and low altitude stalls, pitch rate sensitivity of flight controls (due to lack of aerodynamic damping), and amount of altitude loss required for recovery.		Medium

Conduct Stall Prevention and Recovery	Can appreciate the altitude effects of thrust available for recovery, and lack of airflow through engines at high AOA (reinforces reduction of AOA must precede any increase of thrust).		Medium
Conduct Stall Prevention and Recovery	Can appreciate USING SURPRISE IN TRAINING. Surprise has been a factor in stall incidents and accidents. Although it may be difficult to create surprise in the training environment, if achieved, surprise events may provide a powerful lesson for the crew. The goal of using surprise in training is to provide the crew with a surprise experience to reinforce timely application of the effective recovery technique under potentially confusing circumstances. Considerable care should be used in surprise training to avoid a negative learning experience. Surprise should not be used during checking. Stall prevention training should incorporate event conditions and variables typical of an unintentional stall that are likely to result in surprise due to the unexpected stall development, presentation, and behavior.		Medium

Conduct and Checking: Stall Prevention and Recovery	CHECKING CRITERIA. Checking of prevention, recognition, and recovery from an impending stall should be evaluated on the timely and proper response to the impending stall including effective use of available energy; the criteria should not focus on altitude loss. The check pilot should consider the variables present at the time of the impending stall and their effect on the recovery. Checking criteria are: • Prompt recognition of impending stall, • Correct application of the stall recovery procedure, and • Recovering without exceeding the airplane's limitations.		Medium
Conduct Stall Prevention and Recovery	Can appreciate the STICK PUSHER. For airplanes equipped with a stick pusher, stall recovery training includes ground training and practical training in an FFS. It is important for pilots to experience the sudden forward movement of the control yoke/stick during a stick pusher activation. From observations, most instructors state that, regardless of previous academic training, pilots usually resist the stick pusher on their first encounter. Usually, they immediately pull back on the control yoke/stick rather than releasing pressure as they have been taught. Therefore, pilots must receive practical stick pusher training in an FFS to develop		High

	the proper response (allowing the pusher to reduce AOA) when confronted with a stick pusher activation. Stick pusher training should be completed as a demonstration/practice exercise, including repetitions, until the pilot's reaction is to permit the reduction in AOA even at low altitudes. Pilot response to a deliberate activation of the pusher is not a checked maneuver.		
Conduct Stall Prevention and Recovery	Can conduct a stick pusher demonstration. See Appendix 2, Demonstration 2 for details.		High

SIM 2 Learning Objectives

SIM 2 Briefing Items

Tasks	**Knowledge & Cognitive Learning Objectives**
Understand determining landing performance per AFM	Can explain the parameters and importance of a stabilized approach
Understand determining landing performance per AFM	Can explain the importance of accurate and timely assessments of landing distance
Understand determining landing performance per AFM	Can explain the origin and use of runway Declared Distances
Understand determining landing performance per AFM	Can identify and manage risks associated with runway overruns during the landing

Understand determining landing performance per AFM	Can explain the risks associated with tailwind landings and landings on contaminated runways
Understand determining landing performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining landing performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining landing performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining landing performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Conduct Before Takeoff Checks	Can explain the purpose of checking each item during before takeoff checks
Conduct Before Takeoff Checks	Can describe how to detect malfunctions
Conduct Before Takeoff Checks	Can ensure the aircraft is in safe operating condition
Conduct Before Takeoff Checks	Can explain deicing and anti-icing procedures
Conduct Before Takeoff Checks	Can describe how to conduct a proper pre-takeoff contamination check
Conduct Before Takeoff Checks	Can describe how adverse weather conditions effect takeoff performance (e.g., snow, ice, gusting crosswinds, low-visibility)
Conduct Before Takeoff Checks	Can give a before takeoff briefing
Conduct Departure Procedures	Can explain takeoff minimums
Conduct Departure Procedures	Can explain obstacle Departure Procedure (ODP), including Visual Climb over the Airport (VCOA) and Diverse Vector Area (Radar Vectors)
Conduct Departure Procedures	Can explain Standard Instrument Departures (SID), including RNAV departure
Conduct Departure Procedures	Can explain required climb gradients
Conduct Departure Procedures	Can explain U.S. Terminal Procedures Publications and En Route Charts
Conduct Departure Procedures	Can explain proper use of a Flight Management System (FMS) to follow a DP

Conduct Departure Procedures	Can explain pilot/controller responsibilities, communication procedures, and ATC services available to pilots
Conduct Departure Procedures	Can explain two-way radio communication failure procedures after takeoff
Conduct Departure Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)
Conduct Departure Procedures	Can explain communication failure procedures
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can explain the flight characteristics and controllability associated with maneuvering the airplane with powerplant(s) inoperative to include the importance of drag reduction.
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can explain powerplant restart procedures and conditions where a restart attempt is appropriate.
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can explain the procedures used during a powerplant failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required.
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can explain operational considerations to include: airplane performance, takeoff warning systems, runway length, surface conditions, density altitude, wake turbulence, environmental conditions, obstructions
Conduct OEI Climb to En Route Altitude	Can explain the OEI climb to en route altitude OEM procedure to include an understanding of the difference between climbing at V_{SE} vs. a greater speed per the OEM procedure.
Conduct Holding	Can explain elements related to holding procedures, including reporting criteria, appropriate speeds, and recommended entry procedures for standard, nonstandard, published, and non-published holding patterns.
Conduct Holding	Can explain determining holding endurance based upon factors to include an expect further clearance (EFC) time, fuel on board, fuel flow while holding, fuel required to destination and alternate, etc., as appropriate.
Conduct Holding	Can explain when to declare minimum fuel or a fuel-related emergency.

Conduct Holding	Can explain use of automation for holding to include autopilot and flight management systems, if equipped.
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status
Conduct Missed Approach	Can explain that when executing a missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure
Conduct Missed Approach	Can explain elements related to missed approach procedures to include reference to standby or backup instruments.
Conduct Missed Approach	Can explain limitations associated with standard instrument approaches, including while using an FMS or autopilot, if equipped.
Conduct Nonprecision Approach	Can explain that unstabilized approaches are a key contributor to CFIT events, and explain that present NPAs are designed with and without stepdown fixes in the final approach
Conduct Nonprecision Approach	Can explain why stepdowns flown without a constant descent will require multiple thrust, pitch, and altitude adjustments inside the final approach fix (FAF), and can explain that these adjustments increase pilot workload and potential errors during a critical phase of flight.
Conduct Nonprecision Approach	Can explain that the practice commonly referred to as “dive and drive,” can result in extended level flight as low as 250 feet above the ground in instrument meteorological conditions (IMC) and shallow or steep final approaches.
Conduct Nonprecision Approach	Can explain that a stabilized approach is a key feature to a safe approach and landing. Can explain that operators are encouraged by the FAA and the International Civil Aviation Organization (ICAO) to use the stabilized approach concept to help eliminate CFIT.

Conduct Nonprecision Approach	Can explain that the stabilized approach concept is characterized by maintaining a stable approach speed, descent rate, vertical flightpath, and configuration to the landing touchdown point
Conduct Nonprecision Approach	Can explain that precision IAPs and approach procedures with vertical guidance (APV) have a continuous descent approach profile in their design.
Conduct Nonprecision Approach	Can explain that NPAs were not originally designed with this vertical path, but may easily be flown using the CDFA (continuous descent final approach) technique.
Conduct Nonprecision Approach	Can explain why Flying NPAs with a continuous descent profile will provide a safety advantage over flying approaches using the “dive and drive” technique.
Conduct Nonprecision Approach	Can explain that CDFA is a technique for flying the final approach segment of an NPA as a continuous descent. The technique is consistent with stabilized approach procedures and has no level-off.
Conduct Nonprecision Approach	Can explain the six advantages of CDFA: Increased safety by employing the concepts of stabilized approach criteria and procedure standardization; Improved pilot situational awareness (SA) and reduced pilot workload; Improved fuel efficiency by minimizing the low-altitude level flight time; Reduced noise level by minimizing the level flight time at high thrust settings; Procedural similarities to APV and precision approach operations; Reduced probability of infringement on required obstacle clearance during the final approach segment.
Conduct Nonprecision Approach	Can explain that CDFA requires no specific aircraft equipment other than that specified by the title of the NPA procedure and that Pilots can safely fly suitable NPAs with CDFA using basic piloting techniques, aircraft flight management systems (FMS) and RNAV systems, or by manually computing rate of descent.
Conduct Nonprecision Approach	Can calculate a rate of descent for VDA (see example in this paragraph)
Conduct Nonprecision Approach	Can explain that some approach characteristics (e.g., circling-only minima) and environmental factors (e.g., icing) could make the use of CDFA inadvisable.

Conduct Nonprecision Approach	Can explain procedures and limitations associated with a nonprecision approach, including the differences between Localizer Performance (LP) and Lateral Navigation (LNAV) approach guidance
Conduct Nonprecision Approach	Can explain navigation system displays and annunciations, modes of operation, and RNP lateral accuracy values associated with an RNAV (GPS) approach.
Conduct Nonprecision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).
Conduct Nonprecision Approach	Can explain criteria for a stabilized approach, to include energy management concepts.
Conduct Visual Approach (VFR Procedures)	Can explain the visual approach procedure.
Conduct Pushback	Can describe the published OEM pushback procedure for operations with engines not running, starting the right engine during pushback, and both engines running prior to pushback.
Conduct Taxi	Can explain the information available on an airport diagram, chart supplement and NOTAMS
Conduct Taxi	Can interpret taxi instructions including published taxi routes
Conduct Taxi	Can identify airport and runway markings, signs, and lights
Conduct Taxi	Can describe proper procedures for entering or crossing runways
Conduct Taxi	Can explain procedures for taxi on one engine
Conduct Taxi	Can explain the hazards of low visibility taxi operations
Conduct Taxi	Can describe appropriate aircraft lighting for day and night operations
Conduct Taxi	Can describe appropriate flight deck activities prior to taxi, including route planning, identifying the location of Hot Spots, and coordinating with crew

Conduct Taxi	Can identify The runway and taxiway characteristics concerning width, safety areas, obstacle free zones, markings, hold lines, signs, holding spots, runway slope, suitability of threshold crossing height (TCH), critical area protection, taxiway position markings, runway distance remaining markings, runway distance remaining signs, and LVO/SMGCS should be addressed.
Conduct Taxi	Can explain the definition of a runway incursion: Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
Conduct Taxi	Can explain why thorough planning for taxi operations is essential for a safe operation
Conduct Taxi	Can conduct briefing of the expected taxi route to include any hold short lines and runways to cross, hot spots, and any other potential conflicts. (Once taxi instructions are received, the pretaxi route should be reviewed and monitored. It is essential that any changes to the taxi route be understood by all crewmembers)
Conduct Taxi	Can identify critical locations on the taxi route, where verbal coordination between the PIC and the SIC is important to avoid a runway incursion. (e.g., hot spots/complex intersections, crossing intervening runways, entering and lining up on the runway for takeoff, and approaching and lining up on the runway for landing)
Conduct Taxi	Can conduct briefing of requirements and special considerations during low visibility operations such as: the low visibility taxi chart, if published for the airport
Conduct Taxi	Can maintain knowledge of the aircraft’s precise position throughout the taxi operation and mentally calculate the next location on the route that will require increased attention (e.g., a turn onto another taxiway, an intersecting runway, or hot spots)
Conduct Taxi	Can interpret and use all visual aids, and signage and lighting on the airport surface
Conduct Taxi	Can write down complex taxi instructions or copy taxi instructions into the scratch pad of the CDU

Conduct Taxi	Can explain that before entering a runway for takeoff, the flightcrew should verbally coordinate to ensure correct flap setting, identification of the runway, compass heading, FMC entry, and receipt of the proper ATC clearance to use that runway
Understand Auxiliary Power Unit (APU)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Auxiliary Power Unit (APU)	Can describe the operation of the airplane systems and components using correct terminology
Understand Auxiliary Power Unit (APU)	Can explain system or component limitations
Understand Auxiliary Power Unit (APU)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Auxiliary Power Unit (APU)	Can explain immediate action items or memory items, if appropriate
Understand Auxiliary Power Unit (APU)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Auxiliary Power Unit (APU)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Auxiliary Power Unit (APU)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).
Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable
Understand Avionics and communications -	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Electronic Flight Instrument Systems (EFIS)	
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain system or component limitations
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain the features of the PlaneView System
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the functional characteristics of the cursor control device
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Crew Alerting System (CAS) Caution Messages and Procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Synthetic Vision-Primary Flight Display Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Avionics and Communications - HUD	Can identify all HUD symbology
Understand Avionics and Communications - HUD	Can explain the FPV
Understand Avionics and Communications - HUD	Can explain non-conformal LDI
Understand Avionics and Communications - HUD	Can recognize unusual attitudes when using the HUD
Understand Avionics and Communications - HUD	Can describe crew coordination when using the HUD
Understand Avionics and Communications - HUD	Can describe crew briefings and callouts
Understand Avionics and Communications - HUD	Can describe duties of the pilot flying and pilot monitoring when using HUD
Understand Avionics and Communications - HUD	Can interpret HUD II symbology including caged FPV, non-conformal LDI, and unusual attitudes
Understand Avionics and communications - indicating devices	Can interpret PFD mode annunciations
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can define TA (Traffic Advisory) as Aural voice and display information provided by TCAS to a flightcrew, identifying the location of nearby traffic that meets certain minimum separation criteria
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe TCAS on-ground performance
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that the see-and-avoid concept is still valid even with TCAS
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can define Increase, reversal, crossing, and weakened Ras
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that That TCAS II assures separation from aircraft equipped with an altitude-reporting transponder;
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain the detection and protection provided by TCAS against altitude-reporting and non-altitude-reporting intruders

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that the system detects multiple aircraft
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain TCAS to TCAS coordination
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate the potential impact of not following RAs
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can differentiate between TCAS surveillance range versus display range
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain when an intruder will not be displayed
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain the normal, expected pilot response to TAs, RAs, use of displayed traffic information to establish visual contact, and constraints on maneuvering based solely on Tas.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can state RA inhibit altitudes
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can discuss the risks inherent to an inability to comply with an RA due to aircraft performance limitations after an engine failure, and appropriate response to RAs in limiting performance conditions, such as during heavy weight takeoff or while en route at maximum altitude for a particular weight.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain communication and coordination with ATC related to or following a TCAS event, when to contact ATC, and accepted TCAS phraseology.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can identify TCAS symbology

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain radar altimeter inputs to TCAS, and weather radar/electronic flight information system (EFIS) interfaces
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate familiarization with AFM provisions including information on TCAS modes of operation; normal and atypical flightcrew operating procedures; and response to TAs, RAs, and any AFM limitations.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate familiarization with MEL procedures related to TCAS
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe appropriate pilot response to TCAS RAs and TAs, ATC clearance compliances and nuisance alerts.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can sate that TCAS interrogates other transponder-equipped aircraft within a nominal range of 14 nautical miles (NM).
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that TCAS surveillance range can be reduced in geographic areas with a large number of ground interrogators and/or TCAS II equipped aircraft
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can state that TAs can be issued against any transponder-equipped aircraft which responds to the ICAO Mode C interrogations, even if the aircraft does not have altitude reporting capability.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can state that RAs can be issued only against aircraft that are reporting altitude and only in the vertical plane
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can state that RAs issued against a TCAS-equipped intruder are coordinated to ensure the issuance of complementary RAs

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain that TCAS advisories are based on time to CPA rather than distance. The time must be short and vertical separation must be small, or projected to be small, before an advisory can be issued. The separation standards provided by Air Traffic Services (ATS) are different from the missed distances against which TCAS issues an alert
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain that the time must be short and vertical separation must be small, or projected to be small, before an advisory can be issued.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that the separation standards provided by Air Traffic Services (ATS) are different from the missed distances against which TCAS issues an alert
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that the thresholds for issuing a TA or RA vary with altitude, and are larger at higher altitudes.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that TA tau threshold (trigger point) varies from 20 to 48 seconds before the projected CPA and the RA tau threshold varies from 15 to 35 seconds
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain that RAs are chosen to provide the desired vertical missed distance at CPA. As a result, RAs can instruct a climb or descent through the intruder aircraft's altitude.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that TCAS will neither track nor display non-transponder-equipped aircraft, nor aircraft not responding to TCAS Mode C interrogations.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain that TCAS will automatically fail if the input from the aircraft's barometric altimeter, radio altimeter, or transponder is lost
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that TCAS may not display all proximate transponder-equipped aircraft in areas of high-density traffic.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that, Because of design limitations, the bearing displayed by TCAS is not sufficiently accurate to support the initiation of horizontal maneuvers based solely on the traffic display

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that Because of design limitations, TCAS will not track intruders with a Vertical Speed (VS) in excess of 10,000 feet per minute (fpm). In addition, the design implementation may result in some short-term errors in the tracked VS of an intruder during periods of high vertical acceleration by the intruder
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that Ground proximity warning system (GPWS) warnings and windshear warnings take precedence over TCAS advisories. When either a GPWS or windshear warning is active, TCAS aural annunciations will be inhibited.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that “INCREASE DESCENT” RAs are inhibited below 1,450 (±100) feet AGL
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that “DESCEND” RAs are inhibited below 1,100 (±100) feet AGL.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that all RAs are inhibited below 1,000 (±100) feet AGL.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that all TCAS aural annunciations are inhibited below 500 (±100) feet AGL.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that. If your aircraft type provides RA climb and increase climb commands at certified ceiling, the commands are to be followed.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate the proper use of controls including appreciate that low display ranges are used in the terminal area and the higher display ranges are used in the en route environment and in the transition between the terminal and en route environment.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate the proper use of controls including appreciate that if available, recommended usage of the “ABOVE/BELOW” mode selector. “ABOVE” mode should be used during climb and the “BELOW” mode should be used during descent.

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate the proper use of controls including appreciate that the configuration of the display does not affect the TCAS surveillance volume.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate the proper use of controls including appreciate the benefits of selecting lower ranges when an advisory is issued, in order to increase display resolution
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate the proper use of controls including differentiate between the display of absolute altitude and relative altitude and explain the limitations of using this display if a barometric correction is not provided to TCAS.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can execute proper configuration to display the appropriate TCAS information without eliminating the display of other needed information.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can recognize traffic within the selected display range that is not proximate traffic, (not causing a TA or RA to be issued).
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can recognize proximate traffic in the display, i.e., traffic that is within 6 NM and ±1200 feet.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can recognize non-altitude reporting traffic in the display.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can recognize no bearing TAs and RAs
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can determine when it is necessary to change the selected range for off-scale TAs and RAs to ensure that all available information on the intruder is displayed.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe how to select the minimum available display range which allows the display of TAs to provide the maximum display resolution
Understand Avionics and communications - traffic	Can describe how to select the minimum available display range which allows the display of TAs to provide the maximum display resolution

awareness/warning/avoidance systems	
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that navigation displays oriented on track-up may require a pilot to make a mental adjustment for drift angle when assessing the bearing of proximate traffic.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain the meaning of the red and green areas displayed on the RA display and when the green areas will and will not be displayed.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate general familiarization with the operator's guidance for the use of "TA-ONLY."
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that if "TA-ONLY" is not selected when an airport is conducting simultaneous operations from parallel runways separated by less than 1,200 feet, and to some intersecting runways, RAs can be expected
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that in TA mode, the TA aural annunciation is inhibited below 500 feet AGL. As a result, TAs issued below 500 feet AGL may not be noticed unless the TA display is included in the routine instrument scan.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that in TA-ONLY mode, TAs will be issued at the time an RA is normally issued.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe the division of duties between Pilot Flying (PF) and pilot monitoring (PM)
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can state the expected callouts during a TA or RA
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe proper communications with ATC during a TA or RA
Understand Avionics and communications - traffic	Can describe the conditions under which an RA may not be followed and who will make this decision

awareness/warning/avoidance systems	
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain system or component limitations
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can apply the knowledge items specified in AC120-55C
Understand Avionics and communications - traffic awareness/warning/avoidance systems - TCAS Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance

Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Accelerate-Stop Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely decisions in relation V_1

Understand determining accelerate-stop / accelerate-go distance per AFM	Can state the different causes of RTOs
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the difference between Takeoff Distance and Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the Balanced Field Concept
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain why V_1 can be no less than V_{MCG} nor can be no more than V_R
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.
Understand determining accelerate-stop / accelerate-go distance per AFM	Can conduct a complete takeoff briefing and explain its importance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely and correct decisions related to rejected takeoffs (RTO)
Understand determining climb performance per AFM	Can explain why OEI data may not ensure climb gradient compliance nor obstacle clearance

Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for “all engine” or “engine inoperative” missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around procedures, acceleration segments or transition following an engine failure between the specified “all-engine lateral flightpath” (or radar vectors) and any specified “engine-inoperative lateral flightpath,” using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.
Understand determining climb performance per AFM	Can explain considerations for OEI departure development
Understand determining climb performance per AFM	Can state the definition of takeoff segment
Understand determining climb performance per AFM	Can state the definitions of gross and net flightpath
Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining climb performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators
Understand determining climb performance per AFM	Can locate FAA TALPA videos online
Understand determining climb performance per AFM	Can describe the segments of an instrument departure procedure

Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures
Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining descent performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining descent performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining descent performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining descent performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining fuel requirements per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance

Understand determining fuel requirements per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining fuel requirements per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining performance with an inoperative powerplant for all phases of flight per AFM - Engine Failure Considerations procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand Electrical System - circuit breakers and protection devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Understand Electrical System - circuit breakers and protection devices	Can describe the operation of the airplane systems and components using correct terminology
Understand Electrical System - circuit breakers and protection devices	Can explain system or component limitations
Understand Electrical System - circuit breakers and protection devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System - circuit breakers and protection devices	Can explain immediate action items or memory items, if appropriate
Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Electrical System - circuit breakers and protection devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Electrical System - controls	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Electrical System - controls	Can describe the operation of the airplane systems and components using correct terminology
Understand Electrical System - controls	Can explain system or component limitations
Understand Electrical System - controls	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System - controls	Can explain immediate action items or memory items, if appropriate
Understand Electrical System - controls	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Electrical System - controls	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Electrical System - controls	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can explain system or component limitations
Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Electrical System - generators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Electrical System - generators	Can describe the operation of the airplane systems and components using correct terminology
Understand Electrical System - generators	Can explain system or component limitations
Understand Electrical System - generators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System - generators	Can explain immediate action items or memory items, if appropriate
Understand Electrical System - generators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Electrical System - generators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Electrical System - generators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Electrical System - indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Understand Electrical System - indicators	Can describe the operation of the airplane systems and components using correct terminology
Understand Electrical System - indicators	Can explain system or component limitations
Understand Electrical System - indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System - indicators	Can explain immediate action items or memory items, if appropriate
Understand Electrical System - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Electrical System - indicators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Electrical System - indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Electrical System -batteries	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Electrical System -batteries	Can describe the operation of the airplane systems and components using correct terminology
Understand Electrical System -batteries	Can explain system or component limitations
Understand Electrical System -batteries	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System -batteries	Can explain immediate action items or memory items, if appropriate
Understand Electrical System -batteries	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Electrical System -batteries	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - additives	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - additives	Can describe the operation of the airplane systems and components using correct terminology

Understand Fuel system - additives	Can explain system or component limitations
Understand Fuel system - additives	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - additives	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - additives	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - additives	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - additives	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - capacity and quantities	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - capacity and quantities	Can explain system or component limitations
Understand Fuel system - capacity and quantities	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - capacity and quantities	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - capacity and quantities	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - capacity and quantities - Fuel Leak In Flight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - capacity and quantities - low fuel state procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Fuel system - controls and indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - controls and indicators	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - controls and indicators	Can explain system or component limitations
Understand Fuel system - controls and indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - controls and indicators	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - controls and indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - controls and indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - controls and indicators - Fuel Tank Temperature procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - cross-feeding	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - cross-feeding	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - cross-feeding	Can explain system or component limitations
Understand Fuel system - cross-feeding	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - cross-feeding	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - cross-feeding	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - cross-feeding	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Fuel system - cross-feeding	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - drains	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - drains	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - drains	Can explain system or component limitations
Understand Fuel system - drains	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - drains	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - drains	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - drains	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - drains	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - fuel grade	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - fuel grade	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - fuel grade	Can explain system or component limitations
Understand Fuel system - fuel grade	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - fuel grade	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - fuel grade	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - fuel grade	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Fuel system - fuel grade	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - fuel substitutions	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - fuel substitutions	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - fuel substitutions	Can explain system or component limitations
Understand Fuel system - fuel substitutions	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - fuel substitutions	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - fuel substitutions	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - fuel substitutions	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - fuel substitutions	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - fueling and defueling procedures	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - fueling and defueling procedures	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - fueling and defueling procedures	Can explain system or component limitations
Understand Fuel system - fueling and defueling procedures	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - fueling and defueling procedures	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - fueling and defueling procedures	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Understand Fuel system - fueling and defueling procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - fueling and defueling procedures	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - pumps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - pumps	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - pumps	Can explain system or component limitations
Understand Fuel system - pumps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - pumps	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - pumps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - pumps - fuel boost pump failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - pumps - fuel boost pump failure procedure - Fuel Return Fail Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - transferring	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - transferring	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - transferring	Can explain system or component limitations
Understand Fuel system - transferring	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Understand Fuel system - transferring	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - transferring	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - transferring	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - transferring	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define declared runway distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define landing distance available
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define actual landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can interpret and make proper runway condition reports
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "adjusted landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "unfactored (certified) landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "factored landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the point at which landing configuration should be established in a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe a stabilized approach profile for both VMC and IMC conditions
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of a stabilized descent rate

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of indicated airspeed during a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that ATP criteria for touchdown point is the aiming point markings - 250/+500 feet, or where there are no runway aiming point markings 750 to 1,500 feet from the approach threshold of the runway.
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the effect of downhill runway slope on required landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the impact of excess airspeed on landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the purpose and variables involved in a landing performance assessment at time of arrival
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the effect of wind on landing performance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can identify critical condition combinations that increase risk of a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain proper landing and braking technique
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the difference between AFM dry, certified/approved data and advisory/supplemental data
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can discuss the chain of events that lead to an overrun in this example, and relate it to their own experiences
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can reference applicable regulations for preflight planning
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can calculate the required effective landing distance for dispatch under part 91 and part 135 operations
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the Can U StoP process
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that factors affecting landing distance are cumulative, and why multiple small errors during landing can contribute to a runway overrun

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how an unstabilized approach can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how high airport elevation can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excess airspeed can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how airplane landing weight can contribute to an aircraft overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing beyond the intended touchdown point can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how downhill runway slope can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excessive height over the runway threshold can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how delayed use of deceleration/maximum breaking can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing with a tailwind can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain predeparture planning versus runway condition at time of arrival
Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the difference between the generic samples in table 3-2 where cumulative errors are made, and table 3-3 where errors are not made
Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain how use of published approach guidance in visual conditions can reduce errors
Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the characteristics of effective CRM
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: TCAS alert

Understand Powerplant - turbine wheels	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - turbine wheels	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - turbine wheels	Can explain system or component limitations
Understand Powerplant - turbine wheels	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - turbine wheels	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - turbine wheels	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - turbine wheels	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Powerplant - turbine wheels	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - compressors	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - compressors	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - compressors	Can explain system or component limitations
Understand Powerplant - compressors	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - compressors	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - compressors	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - compressors	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - compressors	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Powerplant - controls and indications	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - controls and indications	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - controls and indications	Can explain system or component limitations
Understand Powerplant - controls and indications	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - controls and indications	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - controls and indications	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - controls and indications	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Powerplant - oil system capacity and quantities	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - oil system capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - oil system capacity and quantities	Can explain system or component limitations
Understand Powerplant - oil system capacity and quantities	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - oil system capacity and quantities	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - oil system capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - oil system capacity and quantities	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - oil system capacity and quantities	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

SIM 2 Tasks and Expectations

Tasks	Motor Skill Learning Objectives	Attitude Learning Objectives	Task Expectation Rating
Understand determining landing performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and	High

		Runway excursions	
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Conduct Before Takeoff Checks		Can manage the risk of errors when assigned an RNAV DP and subsequently receives a change of runway, procedure or transition by verifying the appropriate changes are entered and available for navigation prior to takeoff.	High
Conduct Before Takeoff Checks	Can determine the airplane's takeoff performance for actual conditions and planned departure runway		High
Conduct Before Takeoff Checks	Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		High
Conduct Before Takeoff Checks	Can confirm all systems checked are within an acceptable operating range and are safe for the proposed flight		High
Conduct Before Takeoff Checks	Can explain any system operating characteristic or		High

	limitation and any corrective action for a malfunction during the checks		
Conduct Before Takeoff Checks	Can determine airspeeds/V-speeds and set flight instruments appropriately		High
Conduct Before Takeoff Checks	Can use flight director and autopilot controls for the current flight conditions and takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can perform configuration of navigation equipment for takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can configure communication equipment for takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can obtain and correctly interpret the takeoff and departure clearance		High
Conduct Before Takeoff Checks	Can conduct a briefing that includes procedures for emergency and abnormal situations (e.g., powerplant failure, windshear), which may be encountered during takeoff, and state the planned action if they were to occur		High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing division of attention while conducting before takeoff checks	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing an unexpected change in the	High

		runway to be used for departure	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to verify performance data is correct and airspeeds and flight instruments are set for actual conditions and the departure runway	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to set navigation and communication equipment for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to configure autopilot and flight director controls for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to	High

		account for adverse weather conditions prior to takeoff (e.g., snow, ice, gusting crosswinds, low-visibility)	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing A powerplant failure during takeoff or other malfunction considering operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	High
Conduct Departure Procedures	Can select the appropriate instrument departure procedure.		High

Conduct Departure Procedures	Can select, identify and use the appropriate communication facilities associated with the procedure		High
Conduct Departure Procedures	Can select, identify and use the appropriate navigation facilities associated with the procedure		High
Conduct Departure Procedures	Can perform programming the FMS prior to departure and execute avionics setup of flight director and autopilot controls for the departure		High
Conduct Departure Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		High
Conduct Departure Procedures	Can initiate two-way communications with the proper controlling agency		High
Conduct Departure Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		High
Conduct Departure Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		High
Conduct Departure Procedures	Can comply with all applicable charted procedures		High
Conduct Departure Procedures	Can maintain the appropriate airspeed ±10 knots, headings ±10°, and altitude ±100 feet, and accurately track a course, radial, or bearing		High
Conduct Departure Procedures	Can execute the departure phase to a point where the transition to the en route environment is complete		High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing failure to	High

		communicate with ATC or follow published procedures and required climb gradients	
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing limitations of air traffic avoidance equipment and use of see and avoid techniques	High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing improper automation management	High
Conduct EFVS Operations		When using the EFVS, can demonstrate familiarizatio n with the interpretation of the display to ensure proper identification of the runway and positioning of the aircraft relative to continuation of the approach to	Medium

		landing. Pilots should understand the limitations of these systems, operational credits available, and authorization required for use. For more information on EFVS, refer to AC 90-106.	
Conduct EGPWS Escape Maneuver	Can execute procedure with smoothness and accuracy		Medium
Conduct EGPWS Escape Maneuver	Can operate the airplane within its limitations		Medium
Conduct EGPWS Escape Maneuver	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		Medium
Conduct EGPWS Escape Maneuver		Can apply aeronautical knowledge to execution of the task	Medium
Conduct EGPWS Escape Maneuver		Can apply crew coordination	Medium
Conduct EGPWS Escape Maneuver		Can conduct effective communicatio n with the other crew members	Medium
Conduct EGPWS Escape Maneuver		Can manage crew cooperation	Medium
Conduct EGPWS Escape Maneuver		Can maintain a general survey of the	Medium

		aircraft operation by appropriate supervision	
Conduct EGPWS Escape Maneuver		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	Medium
Conduct EGPWS Escape Maneuver		Can demonstrate good judgement and airmanship	Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can recognize and correctly identify powerplant failure, execute memory items, and maintain positive airplane control.		Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can coordinate with crew and execute the appropriate emergency procedures and checklist(s) for propeller feathering or powerplant shutdown.		Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		Medium
Conduct Emergency Procedure - Inflight	Can determine the cause for the powerplant failure and		Medium

Powerplant Failure and Restart	assess if a restart is a viable option.		
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can maintain the operating powerplant(s) within acceptable operating limits.		Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can maintain airspeed ±10 knots, specified heading ±10° and altitude ±100 feet as specified		Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can assess powerplant restart and, if appropriate, demonstrate the powerplant restart procedures in accordance with the manufacturer or operator specified procedures and checklists.		Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can select the nearest suitable airport or landing area.		Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can perform communication with ATC as appropriate for the situation.		Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure during flight.	Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing failure to follow checklist procedures for a	Medium

		powerplant failure or a powerplant restart.	
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing incorrect diagnosis of the cause of the powerplant failure.	Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing improper airplane configuration.	Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing factors and situations that could lead to an inadvertent stall, spin,	Medium

		and loss of control with an inflight powerplant failure.	
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can execute continued takeoff following failures including engine failure after V1, and any critical failures for the aircraft type that could lead to lateral asymmetry during the takeoff;		Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can execute continued takeoff if the powerplant failure occurs at a point where the airplane can continue to a specified airspeed and altitude at the end of the runway commensurate with the airplane's performance capabilities and operating limitations		Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can maintain the desired airspeed, ±5 knots after establishing a climb, and use flight controls in the proper combination as recommended by the manufacturer, to maintain best performance and trim		Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best		Medium

	performance and trim as required		
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can maintain the appropriate heading, ±5°, when powerplant failure occurs		Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can coordinate with crew and execute the appropriate checklist(s) following the powerplant failure.		Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can perform communication with ATC and the evaluator, as appropriate for the situation.		Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure during takeoff considering operational factors such as takeoff warning inhibit systems, runway/takeoff path length, surface conditions, environment, obstructions, and LAHSO operations.	Medium

Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to brief the plan for a powerplant failure during takeoff, in a crew environment.	Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to correctly identify the inoperative engine (AMEL, AMES).	Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing inability to climb or maintain altitude with an inoperative powerplant (AMEL, AMES).	Medium

Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Medium
Conduct OEI Climb to En Route Altitude	Can conduct an OEI climb enroute at either V_{se} or greater, depending on conditions.		Medium
Conduct Holding	Can identify instrument navigation aids associated with the assigned hold.		Medium
Conduct Holding	Can apply the appropriate entry procedure for a standard, nonstandard, published, or non- published holding pattern.		Medium

Conduct Holding	Can change to the appropriate holding airspeed for the airplane and holding altitude to cross the holding fix at or below maximum holding airspeed		Medium
Conduct Holding	Can comply with the holding pattern leg length and other restrictions, if applicable, associated with the holding pattern.		Medium
Conduct Holding	Can comply with ATC reporting requirements.		Medium
Conduct Holding	Can use proper wind correction procedures to maintain the desired pattern and to arrive over the fix as close as possible to a specified time.		Medium
Conduct Holding	Can maintain the airspeed ±10 knots, altitude ±100 feet, headings ±10°, and accurately track a selected course, radial, or bearing.		Medium
Conduct Holding	Can use automation to include autopilot, flight director controls, and navigation displays associated with the assigned hold.		Medium
Conduct Holding	Can calculate fuel reserve calculations based on EFC times.		Medium
Conduct Holding		Can identify, assess, and manage risks, encompassing recalculating fuel reserves if assigned an unanticipated EFC time.	Medium
Conduct Holding		Can identify, assess, and manage risks, encompassing	Medium

		scenarios and circumstances that could result in minimum fuel or the need to declare an emergency.	
Conduct Holding		Can describe scenarios that could lead to holding, including deteriorating weather at the planned destination.	Medium
Conduct Holding		Can identify, assess, and manage risks, encompassing improper holding entry and improper wind correction while holding.	Medium
Conduct Holding		Can identify, assess, and manage risks, encompassing holding while in icing conditions.	Medium
Conduct Holding		Can identify, assess, and manage risks, encompassing improper automation management.	Medium

Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure	Can execute procedure with smoothness and accuracy		High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure	Can operate the airplane within its limitations		High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can apply aeronautical knowledge to execution of the task	High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can apply crew coordination	High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can conduct effective communication with the other crew members	High

Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can manage crew cooperation	High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can demonstrate good judgement and airmanship	High
Conduct Missed Approach	Can execute a missed approach from the MDA, DA/DH, or AH.		High
Conduct Missed Approach	Can execute a missed approach from a low altitude that could result in a touchdown during go-around (balked or rejected landing).		High

Conduct Missed Approach	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		High
Conduct Missed Approach	Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and initiate a positive rate of climb at the appropriate airspeed/V-speed, ±5 knots.		High
Conduct Missed Approach	Can coordinate with crew and execute the appropriate procedures and checklist(s) in a timely manner.		High
Conduct Missed Approach	Can comply with the published or alternate missed approach procedure.		High
Conduct Missed Approach	Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		High
Conduct Missed Approach	Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure.		High
Conduct Missed Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		High
Conduct Missed Approach	Can demonstrate effective CRM		High
Conduct Missed Approach	Can execute re-engagement of the autopilot at appropriate times during the missed approach procedure.		High
Conduct Missed Approach	Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix, or other clearance limit, as		High

	appropriate, or as directed by the evaluator.		
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to follow prescribed procedures.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing holding, diverting, or electing to fly the approach again.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing factors that might lead to executing a missed approach procedure before the MAP or to a	High

		go-around below DA/MDA.	
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	High
Conduct Nonprecision Approach		Can appreciate that there are environments in which using CDFA technique is not advisable or practical, for example airports that do not offer straight in non-precision approaches.	Medium
Conduct Nonprecision Approach	Can perform the nonprecision instrument approaches selected by the instructor/evaluator		Medium
Conduct Nonprecision Approach	Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		Medium
Conduct Nonprecision Approach	Can execute selection, tuning, identification, and confirmation the operational status of navigation		Medium

	equipment to be used for the approach.		
Conduct Nonprecision Approach	Can Comply with all clearances issued by ATC.		Medium
Conduct Nonprecision Approach	Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		Medium
Conduct Nonprecision Approach	Can coordinate with ATC if unable to comply with a clearance.		Medium
Conduct Nonprecision Approach	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		Medium
Conduct Nonprecision Approach	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		Medium
Conduct Nonprecision Approach	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		Medium
Conduct Nonprecision Approach	Can maintain a stabilized descent to the appropriate altitude.		Medium
Conduct Nonprecision Approach	Can maintain no more than ¼ scale CDI deflection, airspeed ±5 knots of selected value, and altitude above MDA +50/-0 feet (to the VDP or MAP) during the final approach segment		Medium

Conduct Nonprecision Approach	Can execute the missed approach procedure if the required visual references are not distinctly visible and identifiable at the appropriate point or altitude for the approach profile, or execute a normal landing from a straight-in or circling approach.		Medium
Conduct Nonprecision Approach	Can use a Multi-Function Display (MFD) and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		Medium
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to follow the correct approach procedure (e.g., descending too early, etc.).	Medium
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Selecting an incorrect navigation frequency.	Medium
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to manage automated	Medium

		navigation and auto flight systems.	
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to ensure proper airplane configuration during an approach and missed approach.	Medium
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing An unstable approach, including excessive descent rates.	Medium
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Deteriorating weather conditions on approach.	Medium
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Operating below the minimum descent altitude (MDA) or continuing a descent below	Medium

		decision altitude (DA) without proper visual references.	
Conduct Visual Approach (VFR Procedures)	Can conduct a visual approach.		Medium
Conduct Powerplant Start	Can identify an abnormal start or malfunction and execute the correct procedure		High
Conduct Pushback	Can conduct a pushback operation in accordance with the published OEM checklist.		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify currency and integrity of aircraft navigation data		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can obtain a receiver autonomous integrity monitoring (RAIM) prediction for the planned RNP operation		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify successful completion of RNP system self-tests;		High
Conduct RNP operations in the United States, oceanic and remote continental	Can perform initialization navigation system position		High

airspace, and in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform retrieval of an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can execute an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform adherence to speed and/or altitude constraints associated with RNP operations		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can select the appropriate STAR or SID for the active runway in use and be familiar with procedures to deal with a runway change		High
Conduct RNP operations in the United States, oceanic and remote continental	Can verify waypoints and flight plan programming;		High

airspace, and in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform a manual or automatic runway update (with takeoff point shift for Inertial Reference Units (IRU) only);		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying direct to a waypoint		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying a course/track to a waypoint		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform interception of a course/track		High
Conduct RNP operations in the United States, oceanic and remote continental	Can perform flying vectors, and rejoining an RNP route/procedure from the 'heading' mode;		High

airspace, and in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform insertion and deletion of a route discontinuity;		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform removal and reselection of a navigation sensor input;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can confirm exclusion of a specific navigation aid or navigation aid type (distance measuring equipment (DME) and very high frequency omni-directional range (VOR) only);		Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform changing of the arrival airport and alternate airport		High
Conduct RNP operations in the United States, oceanic and remote continental	Can verify the RNP value set in the flight management system (FMS) matches the equipment capability and		Medium

airspace, and in foreign countries which adopt ICAO standards for RNP operations.	authorizations as annotated in the flight plan		
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform parallel offset function if capability exists		High
Conduct Taxi	Low visibility taxi and ground operations should be trained to the extent practical and beneficial. Such training should address operations at typical airports or alternately, at airports frequently experiencing low-visibility conditions, complex airports on the operator’s route system, airports with particular low visibility ground movement difficulties, or rarely used but significant contingency airports, as determined appropriate by the operator.		High
Conduct Taxi	perform either PF or PM duties, unless otherwise limited by the operator’s policies or aircraft characteristics (e.g., single HUD).		High
Conduct Taxi	Can record taxi instructions, respond to taxi clearances, and review taxi routes on the airport diagram.		High
Conduct Taxi	Can use an airport diagram or taxi chart during taxi		High

Conduct Taxi	Can comply with ATC clearances and instructions and observe all runway hold lines, ILS critical areas, beacons, and other airport/taxiway markings and lighting		High
Conduct Taxi	Can coordinate with crew, if applicable, and complete the appropriate checklist(s) prior to and during taxi		High
Conduct Taxi	Can maintain situational awareness during taxi		High
Conduct Taxi	Can maintain correct and positive airplane control, proper speed, appropriate use of wheel brakes and reverse thrust		High
Conduct Taxi	Can maintain separation between other aircraft, vehicles, and persons to avoid an incursion/incident/accident		High
Conduct Taxi	Can use aircraft exterior lighting for day and night operations		High
Conduct Taxi		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing	High

		a taxi route or departure runway change	
Conduct Taxi		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing low visibility taxi operations	High
Conduct Taxi		Can conduct a briefing on the timing and execution of aircraft checklists and company communications at the appropriate times and locations, ensuring the pilot who is not taxiing the aircraft can be available to participate in verbal coordination with the pilot who is taxiing the aircraft	High

Conduct Taxi		Can consider the anticipated duration of the taxi operation, the locations of hot spots/complex intersections and runway crossings, and the visibility along the taxi route when briefing tasks or accomplishing checklists	High
Conduct Taxi		Can manage pilot workload and heads-down time during taxi by conducting predeparture checklists, including setting the takeoff flap setting, when the aircraft is stopped or while taxiing straight ahead on a taxiway without complex intersections and hot spots	High
Conduct Taxi		Can maintain a sterile cockpit	High

		during taxi operations	
Conduct Taxi	Can use airport diagram to follow progress of the taxi operation		High
Conduct Taxi		Can manage the risk of expectation bias, and follow the clearance or instructions that are actually received, and not the ones they expected to receive.	High
Conduct Taxi		Can be alert to ATC instructions to hold short of an ILS critical area holding line.	High
Conduct Taxi		Can monitor the aircraft's progress on the airport diagram to ensure that the pilot taxiing the aircraft is following the instructions received from the ATC while maintaining outside vigilance	High

Conduct Taxi		Can determine whether or not to accept last-minute turnoff instructions from ATC, refusing such clearance unless the crew clearly understands the instructions and are certain that they can safely comply.	High
Conduct Taxi		Can respond to all hold short instructions, and verifies with other crew members or ATC to ensure agreement and understanding	High
Conduct Taxi	Can execute bringing the aircraft to a complete stop, or be in a phase of taxiing that has no risk of a runway incursion before continuing with operational duties and checklists		High
Conduct Taxi		Can comply with hold short or crossing clearance	High

		when approaching an entrance to a runway.	
Conduct Taxi		Can explain or demonstrate proper actions if the crew becomes disoriented: never stop on a runway, and initiate communications with ATC to regain orientation.	High
Conduct Taxi		Can demonstrate vigilance when instructed to taxi and “Line Up and Wait”. Turns Traffic Alert and Collision Avoidance System (TCAS)/traffic advisory systems (TAS) on in order obtain awareness of any aircraft that may be landing on your runway.	High
Conduct Taxi		Can resolve all misunderstandings or disagreements	High

		regarding taxi clearance to the satisfaction of all flightcrew members before taxiing the aircraft.	
Conduct Taxi	Can apply use of the airport diagram after receiving a clearance, and confirms and verbalizes the assigned runway and taxi route, including any instructions to hold short of, or cross, a runway. If there is any doubt, speaks up and resolve the uncertainty before taxi		High
Conduct Taxi		Can coordinate with other flightcrew member(s) if stopping and resuming the monitoring of the ATC frequency, for example when it becomes necessary for a flightcrew member to stop monitoring any ATC frequency to prepare the aircraft for takeoff or landing.	High

Conduct Taxi		Can assess any upcoming hold short instructions or clearances that could be misinterprete d prior to stopping and after resuming monitoring of the taxi. An example may include: “I’m heads-down, right turn ahead at Alpha,” or “I’m back, any changes?”	High
Conduct Taxi		Can appreciate that time away from monitoring ATC should be avoided with complex taxi routing or crossing of runways. Any instructions or information received or transmitted during that flightcrew member’s absence from the ATC frequency should be reviewed and	High

		confirmed upon his or her return.	
Conduct Taxi		Can coordinate verbally at complex intersections to be sure that: the intersection is correctly identified and confirmed using the airport diagram and the heading indicator	High
Conduct Taxi		Can state “approaching (specific runway number) hold short line. Before crossing any hold short line, the flightcrew should visually scan to the left and to the right, including the full length of the runway and its approach paths, and coordinate	High

		verbally (e.g., “clear right/left” or that the scan area is not clear).	
Conduct Taxi		Can coordinate verbally and agree on the runway assigned by ATC, the upcoming assigned exit, and any restrictions, such as hold short points of an intersecting runway and the aircraft’s parking area after landing	High
Conduct Taxi	Can execute turning on the rotating beacon whenever an engine is running		High
Conduct Taxi	Can execute turning on navigation, position, anti-collision, and logo lights, if available, to signal intent to other pilots prior to commencing taxi		High
Conduct Taxi	Can execute turning on the taxi light when the aircraft is moving or intending to move on the ground, and turning it off when stopped or yielding or as a consideration to other pilots or ground personnel		High
Conduct Taxi	Can execute illuminating all lights when crossing a runway when appropriate		High

Conduct Taxi		Can consider any adverse effects to safety that illuminating the forward-facing lights will have on the vision of other pilots or ground personnel during runway crossings, and adjust operation accordingly	High
Conduct TCAS Resolution Advisory (RA)	Can respond to the RA with positive control inputs, when required, while the PM provides updates on the traffic location and cross-checks between the traffic display and monitors the response to the RA		Medium
Conduct TCAS Resolution Advisory (RA)	Can interpret the displayed information, and recognize the intruder causing the issuance of the RA (red square on display).		Medium
Conduct TCAS Resolution Advisory (RA)	Can respond to the corrective RA in the proper direction within 5 seconds of the RA being displayed		Medium
Conduct TCAS Resolution Advisory (RA)	Can respond to a change in the initally displayed RA withing 2.5 seconds		Medium
Conduct TCAS Resolution Advisory (RA)	Can recognize and respond to altitude crossing RAs		Medium
Conduct TCAS Resolution Advisory (RA)	Can respond to preventive RAs by ensuring the VS needle remains outside the red area on the RA display.		Medium

Conduct TCAS Resolution Advisory (RA)	Can maintain vertical speed during "maintain rate" Ras		Medium
Conduct TCAS Resolution Advisory (RA)	Can recognize that a maintain rate RA may result in crossing through the intruder’s altitude.		Medium
Conduct TCAS Resolution Advisory (RA)		Can appreciate that if a decision is made to not follow an RA, no changes in the existing VS are made in a direction opposite to the sense of the displayed RA. Pilots should be aware that if the intruder is also TCAS equipped, the decision to not follow an RA may result in a decrease in separation at CPA because of the intruder’s RA response	Medium
Conduct TCAS Resolution Advisory (RA)	Can execute a return towards the original clearance when the RA weakens, and when clear of conflict is annunciated, pilot executes a complete the return to the original clearance		Medium
Conduct TCAS Resolution Advisory (RA)		Can inform the controller of the RA as	Medium

		soon as time and workload permit, using the standard phraseology	
Conduct TCAS Resolution Advisory (RA)	Can comply with an ATC clearance while responding to an RA when possible. (For example, if the aircraft can level at the assigned altitude while responding to a reduce climb or reduce descent RA, it should be done)		Medium
Conduct TCAS Resolution Advisory (RA)		Can appreciate that If pilots simultaneously receive instructions to maneuver from ATC and an RA that are in conflict, the pilot should follow the RA.	Medium
Conduct TCAS Resolution Advisory (RA)		Can appreciate that TCAS only considers intruders that it believes to be a threat when selecting an RA. As such, it is possible for TCAS to issue an RA against one intruder that results in a maneuver	Medium

		towards another intruder that is not classified as a threat. If the second intruder becomes a threat, the RA will be modified to provide separation from that intruder.	
Conduct TCAS Resolution Advisory (RA)		Can appreciate the consequences of both responding to, and not responding to, an RA	Medium
Conduct TCAS Traffic Advisory (TA)		Can confirm that the aircraft they have visually acquired is that which has caused the TA to be issued	Medium
Conduct TCAS Traffic Advisory (TA)	Can use all information shown on the display, and interpret bearing and range of the intruder (amber circle), whether it is above or below (data tag), and its VS direction (trend arrow).		Medium
Conduct TCAS Traffic Advisory (TA)	Can use other available information is used to assist in visual acquisition. This includes ATC party-line		Medium

	information, traffic flow in use, etc.		
Conduct TCAS Traffic Advisory (TA)		Can appreciate that the PF should not maneuver the aircraft based solely on the information shown on the TCAS display. No attempt should be made to adjust the current flightpath in anticipation of what an RA would advise.	Medium
Conduct TCAS Traffic Advisory (TA)		Can appreciate the limitations of making maneuvers based solely on visual acquisition, especially at high altitude or without a definite horizon	Medium
Conduct TCAS Traffic Advisory (TA)		Can take account of traffic advisory while preparing for a potential resolution	Medium

		advisory (pilot flying)	
Conduct TCAS Traffic Advisory (TA)		Can monitor traffic location shown on the TCAS display, using this information to help visually acquire the intruder.	Medium
Conduct use of FMS	Can perform use of the automatic throttle, flight management computer, or other speed management system, if applicable.		High
Conduct use of FMS		Can manage the risk of errors when receiving a change to assigned routing by ensuring the waypoints sequence depicted by their navigation system matches the route depicted on the appropriate chart(s) and their assigned route	High
Conduct use of FMS	Can verify currency of aircraft navigation data.		High
Conduct use of FMS	Can perform flying a course/track to a waypoint.		High

Conduct use of FMS	Can perform interception of a course/track		High
Conduct use of FMS	Can comply with a vectored off and execute rejoining a procedure.		High
Conduct use of FMS	Can determine cross-track error/deviation		High
Conduct use of FMS	Can execute insertion and deletion of a route discontinuity		High
Conduct use of FMS	Can execute insertion and deletion of a lateral offset		High
Conduct use of FMS	Can execute a change of the arrival airport and alternate airport		High
Conduct use of FMS	Can execute insertion and delete a holding pattern		Medium
Conduct use of FMS	Can verify successful completion of RNAV system self-tests		High
Conduct use of FMS	Can execute initialization of RNAV system position		High
Conduct use of FMS	Can execute retrieval and flying of a DP or STAR with appropriate transition		High
Conduct use of FMS	Can comply with speed and/or altitude constraints associated with a DP or STAR.		High
Conduct use of FMS	Can execute making a runway change associated with a DP or STAR		High
Conduct use of FMS	Can verify waypoints and flight plan programming		High
Conduct use of FMS	Can perform a manual or automatic runway update (with takeoff point shift, if applicable)		High
Conduct use of FMS	Can perform flying direct to a waypoint		High
Conduct use of FMS	Can perform a complex SID consisiting of multiple altitude and speed constraints		High
Conduct use of FMS	Can input a lat/long waypoint to the FMS		High

Conduct use of FMS	Can demonstrate general awareness of all three styles of flight director		High
Conduct use of FMS	Can identify symbology available in synthetic vision system		High
Conduct use of FMS	Can differentiate between conformal and non conformal scaling in the HUD and synthetic vision		High
Conduct use of FMS	Can use the cursor control device effectively		High
Conduct use of HUD	Conduct takeoff and departure using HUD to ATP ACS standards		Medium
Conduct use of HUD	Conduct approach and landing using HUD to ATP ACS standards		Medium
Conduct use of HUD	Can use caged, uncaged and clear modes in crosswind conditions		Medium
Conduct use of HUD	Can use the flare symbol as a cue in the Honeywell HUD Model 2020 and as guidance in the HUD II.		Medium
Conduct use of HUD	Can perform TCAS RA using HUD		Medium
Conduct use of Planeview System, if applicable	Can peform use of the planeview system installed in the full flight training equipment		High
Conduct use of TCAS	Can perform the procedures specified in AC120-55C		Medium
Understand Auxiliary Power Unit (APU)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Auxiliary Power Unit (APU)		Can identify, assess, and manage risks encompassing	High

		failure to follow appropriate checklists or procedures	
Understand Auxiliary Power Unit (APU)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Auxiliary Power Unit (APU)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing improper management	High

		of a system failure	
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - indicating devices	Can interpret flight path vector symbology as it relates to the PFD and HUD, both caged and uncaged		High
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can apply monitoring procedures for each phase of flight (e.g., monitor PROG or LEGS page)		Medium
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can demonstrate familiarization with automatic and/or manual setting of the required RNP value		Medium
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO	Can demonstrate familiarization with the navigation equipment regarding lateral and vertical capture from an RNP routing to an instrument landing system (ILS) or Ground Based Augmentation System		Medium

standards for RNP operations.	(GBAS) Landing System (GLS)		
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can demonstrate how offsets are applied, the functionality of their particular navigation system and the need to advise air traffic control (ATC) if this functionality is not available		Medium
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can apply receiver/transmitter (R/T) phraseology for RNP applications		Medium
Understand Avionics and communications - traffic awareness/warning/avoidance systems		Can appreciate that system limitations include the inability of TCAS to detect nontransponder-equipped aircraft, no RAs issued for traffic without an altitude-reporting transponder	High
Understand Avionics and communications - traffic		Can identify, assess, and manage risks	High

awareness/warning/avoidance systems		encompassing failure to detect system malfunctions or failures.	
Understand Avionics and communications - traffic awareness/warning/avoidance systems		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - traffic awareness/warning/avoidance systems		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - traffic awareness/warning/avoidance systems		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use	High

		of performance charts, tables, and data	
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining accelerate-stop /		Can identify, assess, and manage risks	High

accelerate-go distance per AFM		encompassing Inaccurate use of performance charts, tables, and data	
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can appreciate that take off distance numbers provided by the AFM are the most restrictive result of	High

		numerous part 25 requirements	
Understand determining climb performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and runway excursions	High

Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining cruise performance (e.g., optimum and		Can identify, assess, and manage risks encompassing	High

maximum operating altitudes) per AFM		runway excursions	
Understand determining descent performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High

Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining fuel requirements per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining fuel requirements per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High

Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining weight and balance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining weight and balance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of	High

		performance charts, tables, and data	
Understand Electrical System - circuit breakers and protection devices		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Electrical System - circuit breakers and protection devices		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Electrical System - circuit breakers and protection devices		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Electrical System - circuit breakers and protection devices		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Electrical System - controls		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Electrical System - controls		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Electrical System - controls		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Electrical System - controls		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Electrical System - external and auxiliary power sources. (ground power and APU)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Electrical System - external and auxiliary power sources. (ground power and APU)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Electrical System - external and auxiliary power sources. (ground power and APU)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Electrical System - external and auxiliary power sources. (ground power and APU)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Electrical System - generators		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Electrical System - generators		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Electrical System - generators		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Electrical System - generators		Can identify, assess, and manage risks	High

		encompassing failure to monitor and manage automated systems.	
Understand Electrical System - indicators		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Electrical System - indicators		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Electrical System - indicators		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Electrical System - indicators		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Electrical System -batteries		Can identify, assess, and manage risks encompassing failure to	High

		detect system malfunctions or failures.	
Understand Electrical System -batteries		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Electrical System -batteries		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Electrical System -batteries		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - additives		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - additives		Can identify, assess, and manage risks encompassing failure to follow appropriate	High

		checklists or procedures	
Understand Fuel system - additives		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - additives		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - capacity and quantities		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - capacity and quantities		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - capacity and quantities		Can identify, assess, and manage risks encompassing improper management of a system failure	High

Understand Fuel system - capacity and quantities		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - controls and indicators		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - controls and indicators		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - controls and indicators		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - controls and indicators		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Understand Fuel system - cross-feeding		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - cross-feeding		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - cross-feeding		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - cross-feeding		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - drains		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - drains		Can identify, assess, and manage risks	High

		encompassing failure to follow appropriate checklists or procedures	
Understand Fuel system - drains		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - drains		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - fuel grade		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - fuel grade		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - fuel grade		Can identify, assess, and manage risks encompassing improper	High

		management of a system failure	
Understand Fuel system - fuel grade		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - fuel substitutions		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - fuel substitutions		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - fuel substitutions		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - fuel substitutions		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Fuel system - fueling and defueling procedures		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - fueling and defueling procedures		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - fueling and defueling procedures		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - fueling and defueling procedures		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - pumps		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Fuel system - pumps		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - pumps		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - pumps		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - transferring		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - transferring		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Fuel system - transferring		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - transferring		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand OEM checklist philosohpy		Can appreciate that while there are no defined memory items in the AFM, pilots should still be familiar enough with the aircraft to be able to perform initial and critical items without first referencing associated documentation. In addition, pilots are expected to don oxygen masks promptly when appropriate	High

		(e.g., when smoke is detected).	
Understand OEM checklist philosohpy		Can appreciate that abnormal and emergency procedures are presented in quick reference handbooks (QRH) of an identical format for all three aircraft. Although some individual steps may differ or use different acronyms, these steps are carried out under the guidance of the handbook in a logical decision making manner	High
Understand Powerplant - turbine wheels		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Powerplant - turbine wheels		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Powerplant - turbine wheels		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - turbine wheels		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Powerplant - compressors		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - compressors		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Powerplant - compressors		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - compressors		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Powerplant - controls and indications		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - controls and indications		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Powerplant - controls and indications		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - controls and indications		Can identify, assess, and manage risks	High

		encompassing failure to monitor and manage automated systems.	
Understand Powerplant - oil system capacity and quantities		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - oil system capacity and quantities		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Powerplant - oil system capacity and quantities		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - oil system capacity and quantities		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Conduct EFVS Operations	Per § 61.66(b)(2)(i) can integrate the following: it is necessary that the flight training curriculum includes preflight and in-flight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes, and associated systems, and adjustments for brightness and contrast under day and night conditions. It may be beneficial to perform these tasks in the curriculum using either the manufacturer's recommended procedures or procedures applicable to the operator.		Medium
Conduct EFVS Operations	Per § 61.66(b)(2)(ii) can integrate the following: it is necessary that the flight training curriculum includes proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings. It may be beneficial for the curriculum to allow pilots to become familiar with the use of installed equipment such as an EFVS in all phases of flight.		Medium
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can use a sample of approach types for the EFVS operation being trained (e.g., precision and nonprecision, if applicable).		Medium
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) use a sample of crosswind conditions and offset angles that emphasize the challenges		Low

	of operating with the limited FOV with an EFVS.		
Conduct EFVS Operations	Per § 61.66(b)(2)(iv) can integrate the following: it is necessary that the flight training curriculum includes determining enhanced flight visibility. The curriculum can help pilots learn how to determine enhanced flight visibility using techniques and methods similar to the techniques and methods used for determining flight visibility when conducting an approach without an EFVS.		Medium
Conduct EFVS Operations	Per § 61.66(b)(2)(v) can integrate the following: it is necessary that the flight training curriculum includes identifying required visual references appropriate to EFVS operations. The curriculum can help pilots learn how to identify required visual references using an EFVS with techniques and methods similar to the techniques and methods used for identifying the required visual references when conducting an approach without the use of an EFVS. The PM may use the PM display, if available, to assist the PF in this task.		Medium

Conduct EFVS Operations	Per § 61.66(b)(2)(vi) can integrate the following: it is necessary that the flight training curriculum includes transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment. The curriculum can help pilots learn how to acquire visual references with natural vison at 100 feet during an EFVS-100 operation. There are many acceptable techniques for identifying the visual references with natural vision while the pilot continues using the EFVS to provide the enhanced flight visibility required for the operation.		Medium
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) use procedures applicable to the PF and PM, crew briefings, procedures, callouts, and coordination items for EFVS operations, including annunciation of published minimums during operation below the DA/DH or MDA.		Medium
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct procedures at 100 feet during an EFVS-100 operation.		Medium
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct EFVS failure procedures (procedures for an EFVS failure or a system degradation during an EFVS operation).		Medium
Conduct EFVS Operations	Can conduct preflight and inflight preparation of EFVS equipment for EFVS operations, including EFVS setup and use		Medium

	of display, controls, modes and associated systems, and adjustments for brightness and contrast under day and night conditions.		
Conduct EFVS Operations	Can use proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings.		Medium
Conduct EFVS Operations	Can use proper piloting techniques for the use of EFVS during instrument ap proaches, to include operations below DA/DH or MDA as applicable to the EFVS operations to be conducted, under both day and night conditions.		Medium
Conduct EFVS Operations	Can determine enhanced flight visibility.		Medium
Conduct EFVS Operations	Can identify required visual references appropriate to EFVS operations.		Medium
Conduct EFVS Operations	Can adjust when transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment.		Medium
Conduct EFVS Operations	Can conduct normal, abnormal, emergency, and crew coordination procedures when using an EFVS.		Medium

SIM 3 Learning Objectives

SIM 3 Briefing Items

Tasks	**Knowledge & Cognitive Learning Objectives**

Understand determining landing performance per AFM	Can explain the parameters and importance of a stabilized approach
Understand determining landing performance per AFM	Can explain the importance of accurate and timely assesments of landing distance
Understand determining landing performance per AFM	Can explain the origin and use of runway Declared Distances
Understand determining landing performance per AFM	Can identify and manage risks associated with runway overruns during the landing
Understand determining landing performance per AFM	Can explain the risks associated with tailwind landings and landings on contaminated runways
Understand determining landing performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining landing performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining landing performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining landing performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Conduct Arrival Procedures	Can use standard Terminal Arrival (STAR) charts, U.S. Terminal Procedures Publications, and IFR Enroute High and Low Altitude Charts
Conduct Arrival Procedures	Can use a Flight Management System (FMS) or GPS to follow a STAR
Conduct Arrival Procedures	Can explain two-way radio communication failure procedures during an arrival
Conduct Arrival Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)
Conduct Arrival Procedures	Can explain reasons other than visibility that a go around may suddenly be required
Conduct Arrival Procedures	Can explain the characteristics of a pilot braking action report

Conduct Arrival Procedures	Can explain items to consider when a pilot braking action report is reliable
Conduct Before Takeoff Checks	Can explain the purpose of checking each item during before takeoff checks
Conduct Before Takeoff Checks	Can describe how to detect malfunctions
Conduct Before Takeoff Checks	Can ensure the aircraft is in safe operating condition
Conduct Before Takeoff Checks	Can explain deicing and anti icing procedures
Conduct Before Takeoff Checks	Can describe how to conduct a proper pre-takeoff contamination check
Conduct Before Takeoff Checks	Can describe how adverse weather conditions effect takeoff performance (eg, snow, ice, gusting crosswinds, low-visibility)
Conduct Before Takeoff Checks	Can give a before takoff briefing
Conduct Departure Procedures	Can explain takeoff minimums
Conduct Departure Procedures	Can explain obstacle Departure Procedure (ODP), including Visual Climb over the Airport (VCOA) and Diverse Vector Area (Radar Vectors)
Conduct Departure Procedures	Can explain Standard Instrument Departures (SID), including RNAV departure
Conduct Departure Procedures	Can explain required climb gradients
Conduct Departure Procedures	Can explain U.S. Terminal Procedures Publications and En Route Charts
Conduct Departure Procedures	Can explain proper use of a Flight Management System (FMS) to follow a DP
Conduct Departure Procedures	Can explain pilot/controller responsibilities, communication procedures, and ATC services available to pilots
Conduct Departure Procedures	Can explain two-way radio communication failure procedures after takeoff
Conduct Departure Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)
Conduct Departure Procedures	Can explain communication failure procedures

Conduct Emergency Procedure - Airframe icing	Can explain actions required if icing conditions exceed the capabilities of the airplane.
Conduct Emergency Procedure - Airframe icing	Can explain declaring an emergency and selection of a suitable airport or landing location
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain flight characteristics and controllability associated with maneuvering to a landing with inoperative powerplant(s).
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain go-around/rejected landing procedures with a powerplant failure.
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain how to determine a suitable airport.
Conduct Emergency Procedure - Emergency evacuation	Can explain when an emergency evacuation may be necessary.
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can explain declaring an emergency and selection of a suitable airport or landing location
Conduct Emergency Procedure - Inflight fire and smoke	Can explain causes of inflight fire or smoke.
Conduct Emergency Procedure - Inflight fire and smoke	Can explain declaring an emergency and selection of a suitable airport or landing location
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can explain the flight characteristics and controllability associated with maneuvering the airplane with powerplant(s) inoperative to include the importance of drag reduction.
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can explain powerplant restart procedures and conditions where a restart attempt is appropriate.
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can explain the procedures used during a powerplant failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required.
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can explain operational considerations to include: airplane performance, takeoff warning systems, runway length, surface conditions, density altitude, wake turbulence, environmental conditions, obstructions

Conduct OEI Climb to En Route Altitude	Can explain the OEI climb to en route altitude OEM procedure to include an understanding of the difference between climbing at V_{SE} vs. a greater speed per the OEM procedure.
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain flight characteristics and controllability associated with maneuvering to a landing with inoperative powerplant(s).
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain missed approach considerations with a powerplant failure.
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain how to determine a suitable airport.
Conduct Holding	Can explain elements related to holding procedures, including reporting criteria, appropriate speeds, and recommended entry procedures for standard, nonstandard, published, and non-published holding patterns.
Conduct Holding	Can explain determining holding endurance based upon factors to include an expect further clearance (EFC) time, fuel on board, fuel flow while holding, fuel required to destination and alternate, etc., as appropriate.
Conduct Holding	Can explain when to declare minimum fuel or a fuel-related emergency.
Conduct Holding	Can explain use of automation for holding to include autopilot and flight management systems, if equipped.
Conduct Instrument Takeoff	Can describe procedures during takeoff to address the transition from visual flight to instrument flight for both the pilot flying (PF) and pilot monitoring (PM), to include the use and limitations of any flight guidance or visual systems in use. Pilots should be aware of the operator's policy for responding to loss of suitable visual reference during takeoff, in the low and high speed regimes, both before and after V1 (refer to AC 120-62 for additional information and recommendations for training).

Conduct Instrument Takeoff	Can explain operational factors that could affect an instrument takeoff (airports available in the event of an emergency after takeoff).
Conduct Lower than Standard Minimum Takeoff	Can discuss all revelant OpSpec requirements for Lower than Standard Minimum Takeoff.
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status
Conduct Landing From a Precision Approach	Can recognize significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH.
Conduct Landing From a Precision Approach	Can recognize ground or navigation system faults, failures or abnormalities at any point during the approach and landing.
Conduct Landing From a Precision Approach	Can explain elements related to the pilot's responsibilities, and the environmental, operational, and meteorological factors that affect landing from a precision approach.
Conduct Landing From a Precision Approach	Can explain approach lighting systems and runway and taxiway signs, markings and lighting.
Conduct Missed Approach - OEI	Can explain that when executing an one engine inoperative missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure.
Conduct Missed Approach - OEI	Can explain elements related to a one engine inoperative missed approach procedures to include reference to standby or backup instruments.
Conduct Missed Approach - OEI	Can explain limitations associated with standard instrument approaches, including

	while using an FMS or autopilot, if equipped.
Conduct Nonprecision Approach	Can explain that unstabilized approaches are a key contributor to CFIT events, and explain that present NPAs are designed with and without stepdown fixes in the final approach
Conduct Nonprecision Approach	Can explain why stepdowns flown without a constant descent will require multiple thrust, pitch, and altitude adjustments inside the final approach fix (FAF), and can explain that these adjustments increase pilot workload and potential errors during a critical phase of flight.
Conduct Nonprecision Approach	Can explain that the practice commonly referred to as "dive and drive," can result in extended level flight as low as 250 feet above the ground in instrument meteorological conditions (IMC) and shallow or steep final approaches.
Conduct Nonprecision Approach	Can explain that a stabilized approach is a key feature to a safe approach and landing. Can explain that operators are encouraged by the FAA and the International Civil Aviation Organization (ICAO) to use the stabilized approach concept to help eliminate CFIT.
Conduct Nonprecision Approach	Can explain that the stabilized approach concept is characterized by maintaining a stable approach speed, descent rate, vertical flightpath, and configuration to the landing touchdown point
Conduct Nonprecision Approach	Can explain that precision IAPs and approach procedures with vertical guidance (APV) have a continuous descent approach profile in their design.
Conduct Nonprecision Approach	Can explain that NPAs were not originally designed with this vertical path, but may easily be flown using the CDFA (continuous descent final approach) technique.

Conduct Nonprecision Approach	Can explain why Flying NPAs with a continuous descent profile will provide a safety advantage over flying approaches using the “dive and drive” technique.
Conduct Nonprecision Approach	Can explain that CDFA is a technique for flying the final approach segment of an NPA as a continuous descent. The technique is consistent with stabilized approach procedures and has no level-off.
Conduct Nonprecision Approach	Can explain the six advantages of CDFA: Increased safety by employing the concepts of stabilized approach criteria and procedure standardization; Improved pilot situational awareness (SA) and reduced pilot workload; Improved fuel efficiency by minimizing the low-altitude level flight time; Reduced noise level by minimizing the level flight time at high thrust settings; Procedural similarities to APV and precision approach operations; Reduced probability of infringement on required obstacle clearance during the final approach segment.
Conduct Nonprecision Approach	Can explain that CDFA requires no specific aircraft equipment other than that specified by the title of the NPA procedure and that Pilots can safely fly suitable NPAs with CDFA using basic piloting techniques, aircraft flight management systems (FMS) and RNAV systems, or by manually computing rate of descent.
Conduct Nonprecision Approach	Can calculate a rate of descent for VDA (see example in this paragraph)
Conduct Nonprecision Approach	Can explain that some approach characteristics (e.g., circling-only minima) and environmental factors (e.g., icing) could make the use of CDFA inadvisable.
Conduct Nonprecision Approach	Can explain procedures and limitations associated with a nonprecision approach, including the differences between Localizer Performance (LP) and Lateral Navigation (LNAV) approach guidance

Conduct Nonprecision Approach	Can explain navigation system displays and annunciations, modes of operation, and RNP lateral accuracy values associated with an RNAV (GPS) approach.
Conduct Nonprecision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).
Conduct Nonprecision Approach	Can explain criteria for a stabilized approach, to include energy management concepts.
Conduct Normal Approach and Landing	Can explain stabilized approach, to include energy management concepts.
Conduct Normal Approach and Landing	Can explain effects of atmospheric conditions, including wind, on approach and landing performance.
Conduct Normal Approach and Landing	Can explain wind correction techniques on approach and landing.
Conduct Normal Approach and Landing	Can identify airport and runway markings, signs, and lights
Conduct Precision Approach	Can describe normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures
Conduct Precision Approach	Can describe procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.
Conduct Precision Approach	Can recognize the limits of acceptable aircraft position and flightpath tracking during approach, flare and rollout. This should be addressed using appropriate displays or annunciations for either automatic or manual landing systems.
Conduct Precision Approach	Can identify nearby critical terrain or obstruction environment;

Conduct Precision Approach	Can explain procedures and limitations associated with a precision approach, including determining required descent rates and adjusting minimums in the case of inoperative equipment.
Conduct Precision Approach	Can explain navigation system displays, annunciations, and modes of operation.
Conduct Precision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).
Conduct Precision Approach	Can explain stabilized approach criteria, to include energy management concepts.
Conduct Rejected Takeoff	Can describe safety considerations following a rejected takeoff
Conduct Rejected Takeoff	Can explain the procedure for accomplishing a rejected takeoff
Conduct Rejected Takeoff	Can explain accelerate/stop distance
Conduct Rejected Takeoff	Can describe conditions and situations that could warrant a rejected takeoff (e.g., takeoff warning systems, powerplant failure, other systems warning/failure)
Conduct Rejected Takeoff	Can define relevant V-speeds for a rejected takeoff
Conduct Taxi	Can explain the information available on an airport diagram, chart supplement and NOTAMS
Conduct Taxi	Can interpret taxi instructions including published taxi routes
Conduct Taxi	Can identify airport and runway markings, signs, and lights
Conduct Taxi	Can describe proper procedures for entering or crossing runways
Conduct Taxi	Can explain procedures for taxi on one engine
Conduct Taxi	Can explain the hazards of low visibility taxi operations
Conduct Taxi	Can describe appropriate aircraft lighting for day and night operations
Conduct Taxi	Can describe appropriate flight deck activities prior to taxi, including route planning, identifying the location of Hot Spots, and coordinating with crew

Conduct Taxi	Can identify The runway and taxiway characteristics concerning width, safety areas, obstacle free zones, markings, hold lines, signs, holding spots, runway slope, suitability of threshold crossing height (TCH), critical area protection, taxiway position markings, runway distance remaining markings, runway distance remaining signs, and LVO/SMGCS should be addressed.
Conduct Taxi	Can explain the definition of a runway incursion: Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
Conduct Taxi	Can explain why thorough planning for taxi operations is essential for a safe operation
Conduct Taxi	Can conduct briefing of the expected taxi route to include any hold short lines and runways to cross, hot spots, and any other potential conflicts. (Once taxi instructions are received, the pretaxi route should be reviewed and monitored. It is essential that any changes to the taxi route be understood by all crewmembers)
Conduct Taxi	Can identify critical locations on the taxi route, where verbal coordination between the PIC and the SIC is important to avoid a runway incursion. (e.g., hot spots/complex intersections, crossing intervening runways, entering and lining up on the runway for takeoff, and approaching and lining up on the runway for landing)
Conduct Taxi	Can conduct briefing of requirements and special considerations during low visibility operations such as: the low visibility taxi chart, if published for the airport

Conduct Taxi	Can maintain knowledge of the aircraft's precise position throughout the taxi operation and and mentally calculate the next location on the route that will require increased attention (e.g., a turn onto another taxiway, an intersecting runway, or hot spots)
Conduct Taxi	Can interpret and use all visual aids, and signage and lighting on the airport surface
Conduct Taxi	Can write down complex taxi instructions or copy taxi instructions into the scratch pad of the CDU
Conduct Taxi	Can explain that before entering a runway for takeoff, the flightcrew should verbally coordinate to ensure correct flap setting, identification of the runway, compass heading, FMC entry, and receipt of the proper ATC clearance to use that runway
Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).
Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable
Understand Avionics and communications - emergency locator transmitter.	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - emergency locator transmitter.	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - emergency locator transmitter.	Can explain system or component limitations
Understand Avionics and communications - emergency locator transmitter.	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - emergency locator transmitter.	Can explain immediate action items or memory items, if appropriate

Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - emergency locator transmitter.	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and Communications - HUD	Can identify all HUD symbology
Understand Avionics and Communications - HUD	Can explain the FPV
Understand Avionics and Communications - HUD	Can explain non-conformal LDI
Understand Avionics and Communications - HUD	Can recognize unusual attitudes when using the HUD
Understand Avionics and Communications - HUD	Can describe crew coordination when using the HUD
Understand Avionics and Communications - HUD	Can describe crew briefings and callouts
Understand Avionics and Communications - HUD	Can describe duties of the pilot flying and pilot monitoring when using HUD
Understand Avionics and Communications - HUD	Can interpret HUD II symbology including caged FPV, non-conformal LDI, and unusual attitudes
Understand Avionics and communications - indicating devices - (EVS) Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - indicating devices - (HUD) Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Crew and Passenger Emergency Equipment - emergency exits	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Crew and Passenger Emergency Equipment - emergency exits	Can describe the operation of the airplane systems and components using correct terminology

Understand Crew and Passenger Emergency Equipment - emergency exits	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Crew and Passenger Emergency Equipment - emergency exits	Can explain immediate action items or memory items, if appropriate
Understand Crew and Passenger Emergency Equipment - emergency exits	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Crew and Passenger Emergency Equipment - emergency exits	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Crew and Passenger Emergency Equipment - survival gear	Can explain the location, purpose and operation of emergency equipment in the aircraft
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the airspeeds used during specific phases of flight

Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Accelerate-Stop Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely decisions in relation V_1
Understand determining accelerate-stop / accelerate-go distance per AFM	Can state the different causes of RTOs
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the difference between Takeoff Distance and Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the Balanced Field Concept
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain why V_1 can be no less than V_{MCG} nor can be no more than V_R
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.
Understand determining accelerate-stop / accelerate-go distance per AFM	Can conduct a complete takeoff briefing and explain it's importance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely and correct decisions related to rejected takeoffs (RTO)
Understand determining climb performance per AFM	Can explain why OEI data may not ensure climb gradient compliance nor obstacle clearance

Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for "all engine" or "engine inoperative" missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around procedures, acceleration segments or transition following an engine failure between the specified "all-engine lateral flightpath" (or radar vectors) and any specified "engine-inoperative lateral flightpath," using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.
Understand determining climb performance per AFM	Can explain considerations for OEI departure development
Understand determining climb performance per AFM	Can state the definition of take off segment
Understand determining climb performance per AFM	Can state the definitions of gross and net flighpath
Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining climb performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators
Understand determining climb performance per AFM	Can locate FAA TALPA videos online
Understand determining climb performance per AFM	Can describe the segments of an instrument departure procedure

Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures
Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining performance with an inoperative powerplant for all phases of flight per AFM - Engine Failure Considerations procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand evacuation procedures and crew duties - Cabin Window Cracked procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand evacuation procedures and crew duties - Ditching procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand evacuation procedures and crew duties - External Baggage Door Not Secure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand evacuation procedures and crew duties - Main Entrance Door Not Secure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand evacuation procedures and crew duties - Planned Airplane Evacuation procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can describe the operation of the airplane systems and components using correct terminology
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain system or component limitations
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain immediate action items or memory items, if appropriate
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand flight operations in icing conditions	Can explain that "severe icing" is when the rate of ice accumulation is such that ice protection systems fail to remove the accumulation of ice and accumulation occurs in areas not normally prone to icing, such as aft of protected surfaces and other areas identified by the manufacturer

Understand ground operations in icing conditions	Can explain that regulations prohibit takeoff when snow, ice, or frost is adhering to wings, propellers, or control surfaces of an aircraft.
Understand ground operations in icing conditions	Can explain that the degradation in aircraft performance and changes in flight characteristics when frozen contaminants are present are wide ranging, unpredictable, and highly dependent upon individual aircraft design
Understand ground operations in icing conditions	Can explain that the PIC has the ultimate responsibility to determine if the aircraft is clean and that the aircraft is in a condition for safe flight.
Understand ground operations in icing conditions	Can explain the general adverse effects of ice, snow and frost on aircraft performance and flight characteristics: decreased thrust, decreased lift, increased stall speed, trim changes, and altered stall characteristics and handling qualities
Understand ground operations in icing conditions	Can explain that in order to achieve compliance with the clean aircraft concept, it is imperative that takeoff not be attempted in any aircraft unless the pilot-in-command (PIC) is certain that critical components of the aircraft are free of frozen contaminants.
Understand ground operations in icing conditions	Can explain that for aircraft type specific procedures, pilots should refer to the aircraft flight manuals or other manufacturer documents developed for that particular type aircraft
Understand ground operations in icing conditions	Can explain that icing conditions (during flight or ground operations) can occur, and ice protection systems or procedures should be activated when OAT is below 50 degrees F (10 degrees C) and visible moisture in any form is present or when there is standing water, ice, or snow on the runway and/or taxiways.

Understand ground operations in icing conditions	Can explain that residual ice or slush accumulated on airframe components during landing and taxi operations on contaminated runways, taxiways and ramps, can remain in place if low temperatures and other weather conditions exist unless identified and removed. Contaminants of this type are commonly found in wheel wells, on landing gear components, trailing edge flaps, undersurfaces of wings and horizontal stabilizers
Understand ground operations in icing conditions	Can explain that the deicing process is intended to restore the aircraft to a clean configuration so that neither degradation of aerodynamic characteristics nor mechanical interference from contaminants will occur
Understand ground operations in icing conditions	Can explain that it is essential that the PIC have a thorough understanding of the deicing and anti-icing process and the approved procedures necessary to ensure that the aircraft is clean for takeoff.
Understand ground operations in icing conditions	Can explain that anti-icing should be performed as near to the takeoff time as possible to minimize the risk of exceeding the useful life or time of effectiveness of the anti-icing fluid
Understand Ice Protection - anti-ice & de-ice - Ice Shedding Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Ice Protection - anti-ice & de-ice.	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Ice Protection - anti-ice & de-ice.	Can describe the operation of the airplane systems and components using correct terminology
Understand Ice Protection - anti-ice & de-ice.	Can explain system or component limitations
Understand Ice Protection - anti-ice & de-ice.	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Ice Protection - anti-ice & de-ice.	Can explain immediate action items or memory items, if appropriate

Understand Ice Protection - anti-ice & de-ice.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Ice Protection - anti-ice & de-ice.	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Ice Protection - anti-ice & de-ice.	Can explain the function and limitations of automatic mode of wing and cowl anti-ice systems
Understand Ice Protection - pitot-static system protection	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Ice Protection - pitot-static system protection	Can describe the operation of the airplane systems and components using correct terminology
Understand Ice Protection - pitot-static system protection	Can explain system or component limitations
Understand Ice Protection - pitot-static system protection	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Ice Protection - pitot-static system protection	Can explain immediate action items or memory items, if appropriate
Understand Ice Protection - pitot-static system protection	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Ice Protection - pitot-static system protection	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Ice Protection airfoil surfaces	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Ice Protection airfoil surfaces	Can describe the operation of the airplane systems and components using correct terminology
Understand Ice Protection airfoil surfaces	Can explain system or component limitations
Understand Ice Protection airfoil surfaces	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Understand Ice Protection airfoil surfaces	Can explain immediate action items or memory items, if appropriate
Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Ice Protection airfoil surfaces	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Ice Protection windshield	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Ice Protection windshield	Can describe the operation of the airplane systems and components using correct terminology
Understand Ice Protection windshield	Can explain system or component limitations
Understand Ice Protection windshield	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Ice Protection windshield	Can explain immediate action items or memory items, if appropriate
Understand Ice Protection windshield	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Ice Protection windshield	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Ice Protection windshield - Windshield Cracked procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Ice Protection windshield - Windshield Heat Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define declared runway distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define landing distance available
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define actual landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can interpret and make proper runway condition reports
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "adjusted landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "unfactored (certified) landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "factored landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the point at which landing configuration should be established in a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe a stabilized approach profile for both VMC and IMC conditions
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of a stabilized descent rate
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the charcteristics of indicated airspeed during a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that ATP criteria for touchdown point is the aiming point markings - 250/+500 feet, or where there are no runway aiming point markings 750 to 1,500 feet from the approach threshold of the runway.
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the effect of downhill runway slope on required landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the impact of excess airspeed on landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the purpose and variables involved in a landing performance assessment at time of arrival
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the effect of wind on landing performance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can identify critical condition combinations that increase risk of a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain proper landing and braking technique

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the difference between AFM dry, certified/approved data and advisory/supplemental data
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can discuss the chain of events that lead to an overrun in this example, and relate it to their own experiences
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can reference applicable regulations for preflight planning
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can calculate the required effective landing distance for dispatch under part 91 and part 135 operations
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the Can U StoP process
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that factors affecting landing distance are cumulative, and why mulitple small errors during landing can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how an unstabilized approach can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how high airport elevation can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excess airspeed can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how airplane landing weight can contribute to an aircraft overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing beyond the intended touchdown point can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how downhill runway slope can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excessive height over the runway threshold can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how delayed use of deceleration/maximum breaking can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing with a tailwind can can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain predeparture planning versus runway condition at time of arrival
Understand OEM checklist philosohpy	Can state the initial critical pilot responses promptly and without reference to a checklist: Rejected Takeoff

Understand OEM checklist philosohpy	Can state the initial critical pilot responses promptly and without reference to a checklist: Engine failure/fire after takeoff decision speed (V1)
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can describe the operation of the airplane systems and components using correct terminology
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain system or component limitations
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain immediate action items or memory items, if appropriate
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Pitot Static System - Operation and power sources for other flight instruments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Pitot Static System - Operation and power sources for other flight instruments	Can describe the operation of the airplane systems and components using correct terminology
Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain system or component limitations
Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain immediate action items or memory items, if appropriate
Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Pitot Static System - Operation and power sources for other flight instruments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Pneumatic and environmental system - pressurization - Unpressurized Flight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Pneumatic and environmental system - supply for ice protection systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Pneumatic and environmental system - supply for ice protection systems	Can describe the operation of the airplane systems and components using correct terminology
Understand Pneumatic and environmental system - supply for ice protection systems	Can explain system or component limitations
Understand Pneumatic and environmental system - supply for ice protection systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Pneumatic and environmental system - supply for ice protection systems	Can explain immediate action items or memory items, if appropriate
Understand Pneumatic and environmental system - supply for ice protection systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pneumatic and environmental system - supply for ice protection systems	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Pneumatic and environmental system - supply for ice protection systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to

	document inoperative components of this system and explain related procedures
Understand Powerplant - controls and indications - Engine Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - controls and indications - Pylon Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - deicing, anti-icing	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - deicing, anti-icing	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - deicing, anti-icing	Can explain system or component limitations
Understand Powerplant - deicing, anti-icing	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - deicing, anti-icing	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - deicing, anti-icing	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - deicing, anti-icing	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - deicing, anti-icing	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).	Can explain and demonstrate the use of charts, tables, and data to determine performance

SIM 3 Tasks and Expectations

Tasks	Motor Skill Learning Objectives	Attitude Learning Objectives	Task Expectation Rating
Understand determining landing performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High

Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Conduct Arrival Procedures		Can manage the risk of errors when assigned an STAR and subsequently receives a change of landing runway, procedure or transition by verifying the appropriate changes are entered and available for navigation	High
Conduct Arrival Procedures	Can select, identify and use the appropriate communication and navigation facilities associated with the arrival		High
Conduct Arrival Procedures	Can perform setup of FMS and avionics to include flight director and autopilot controls for the arrival, if applicable		High
Conduct Arrival Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		High
Conduct Arrival Procedures	Can initiate two-way communications with the proper controlling agency		High
Conduct Arrival Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		High

Conduct Arrival Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		High
Conduct Arrival Procedures	Can comply with all applicable charted procedures		High
Conduct Arrival Procedures	Can comply with airspeed restrictions required by regulation, procedure, aircraft limitation or ATC		High
Conduct Arrival Procedures	Can maintain rate of descent consistent with the route segment, airplane operating characteristics and safety		High
Conduct Arrival Procedures	Can maintain the appropriate airspeed/V-speed ±10 knots, but not less than VRef if applicable, heading ±10°, altitude ±100 feet, and accurately track radials, courses, and bearings		High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures.	High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to recognize limitations of traffic avoidance equipment.	High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing	High

		failure to use see and avoid techniques when possible.	
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing improper automation management.	High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing ATC instructions that modify an arrival or discontinue/resume the aircraft's lateral or vertical navigation on an arrival.	High
Conduct Before Takeoff Checks		Can manage the risk of errors when assigned an RNAV DP and subsequently receives a change of runway, procedure or transition by verifying the appropriate changes are entered and available for navigation prior to takeoff.	High

Conduct Before Takeoff Checks	Can determine the airplane's takeoff performance for actual conditions and planned departure runway		High
Conduct Before Takeoff Checks	Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		High
Conduct Before Takeoff Checks	Can confirm all systems checked are within an acceptable operating range and are safe for the proposed flight		High
Conduct Before Takeoff Checks	Can explain any system operating characteristic or limitation and any corrective action for a malfunction during the checks		High
Conduct Before Takeoff Checks	Can determine airspeeds/V-speeds and set flight instruments appropriately		High
Conduct Before Takeoff Checks	Can use flight director and autopilot controls for the current flight conditions and takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can perform configuration of navigation equipment for takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can configure communication equipment for takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can obtain and correctly interpret the takeoff and departure clearance		High
Conduct Before Takeoff Checks	Can conduct a briefing that includes procedures for emergency and abnormal situations (e.g., powerplant failure, windshear), which may be encountered during takeoff, and state the planned action if they were to occur		High

Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing division of attention while conducting before takeoff checks	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing an unexpected change in the runway to be used for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to verify performance data is correct and airspeeds and flight instruments are set for actual conditions and the departure runway	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to set navigation and communicatio n equipment for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks,	High

		encompassing failure to configure autopilot and flight director controls for departure	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to account for adverse weather conditions prior to takeoff (e.g., snow, ice, gusting crosswinds, low-visibility)	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing A powerplant failure during takeoff or other malfunction considering operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks,	High

		encompassing failure to complete checklist(s)	
Conduct Departure Procedures	Can select the appropriate instrument departure procedure.		High
Conduct Departure Procedures	Can select, identify and use the appropriate communication facilities associated with the procedure		High
Conduct Departure Procedures	Can select, identify and use the appropriate navigation facilities associated with the procedure		High
Conduct Departure Procedures	Can perform programming the FMS prior to departure and execute avionics setup of flight director and autopilot controls for the departure		High
Conduct Departure Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		High
Conduct Departure Procedures	Can initiate two-way communications with the proper controlling agency		High
Conduct Departure Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		High
Conduct Departure Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		High
Conduct Departure Procedures	Can comply with all applicable charted procedures		High
Conduct Departure Procedures	Can maintain the appropriate airspeed ±10 knots, headings ±10°, and altitude ±100 feet, and accurately track a course, radial, or bearing		High
Conduct Departure Procedures	Can execute the departure phase to a point where the		High

	transition to the en route environment is complete		
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures and required climb gradients	High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing limitations of air traffic avoidance equipment and use of see and avoid techniques	High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing improper automation management	High
Conduct EFVS Operations		When using the EFVS, can demonstrate familiarization with the interpretation of the display to ensure proper identification of the runway and	High

		positioning of the aircraft relative to continuation of the approach to landing. Pilots should understand the limitations of these systems, operational credits available, and authorization required for use. For more information on EFVS, refer to AC 90-106.	
Conduct Emergency Procedure - Airframe icing	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Airframe icing		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Airframe icing		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High
Conduct Emergency Procedure - Airframe icing		Can identify, assess, and manage risks, encompassing failure to consider	High

		altitude, wind, terrain, and obstructions in an emergency.	
Conduct Emergency Procedure - Airframe icing		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can respond appropriately to engine failure prior to or during an approach.		Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can recognize and correctly identify powerplant failure, execute memory items, and maintain positive airplane control.		Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can coordinate with crew, if applicable, and complete the appropriate emergency procedures and checklist(s) for simulated propeller feathering or simulated powerplant shutdown.		Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain the operating powerplant(s) within acceptable operating limits.		Medium
Conduct Emergency Procedure - Approach and	Can perform communication with ATC and the evaluator, as appropriate for the situation.		Medium

Landing with a Powerplant Failure			
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can perform establishing the recommended approach and landing configuration and airspeed, ±5 knots, and adjust pitch attitude and power as required to maintain a stabilized approach.		Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain directional control and appropriate crosswind correction throughout the approach and landing.		Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can perform smooth, timely, and correct control application before, during, and after touchdown.		Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain positive aircraft control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can coordinate with crew and execute after landing checklists(s).		Medium

Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure inflight or during an approach.	Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing improper airplane configuration.	Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing distractions,	Medium

		loss of situational awareness, or improper task management.	
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing performing a go-around/rejected landing with a powerplant failure.	Medium
Conduct Emergency Procedure - Emergency evacuation	Can perform communication with ATC and the evaluator, as appropriate for the situation.		Medium
Conduct Emergency Procedure - Emergency evacuation		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	Medium
Conduct Emergency Procedure - Emergency evacuation		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	Medium
Conduct Emergency Procedure - Emergency evacuation		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and	Medium

		obstructions in an emergency.	
Conduct Emergency Procedure - Emergency evacuation		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Medium
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can coordinate with crew and execute the appropriate checklist(s) in a timely manner		High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High

Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Inflight fire and smoke	Can perform communication with ATC and the evaluator, as appropriate for the situation.		Medium
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	Medium
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	Medium
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing failure to	Medium

		consider altitude, wind, terrain, and obstructions in an emergency.	
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Medium
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can recognize and correctly identify powerplant failure, execute memory items, and maintain positive airplane control.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can coordinate with crew and execute the appropriate emergency procedures and checklist(s) for propeller feathering or powerplant shutdown.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can determine the cause for the powerplant failure and assess if a restart is a viable option.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can maintain the operating powerplant(s) within acceptable operating limits.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can maintain airspeed ±10 knots, specified heading ±10° and altitude ±100 feet as specified		High

Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can assess powerplant restart and, if appropriate, demonstrate the powerplant restart procedures in accordance with the manufacturer or operator specified procedures and checklists.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can select the nearest suitable airport or landing area.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can perform communication with ATC as appropriate for the situation.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure during flight.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing failure to follow checklist procedures for a powerplant failure or a powerplant restart.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing incorrect diagnosis of the cause of	High

		the powerplant failure.	
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing improper airplane configuration.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing factors and situations that could lead to an inadvertent stall, spin, and loss of control with an inflight powerplant failure.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing distractions, loss of	High

		situational awareness, or improper task management.	
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can execute continued takeoff following failures including engine failure after V1, and any critical failures for the aircraft type that could lead to lateral asymmetry during the takeoff;		Medium
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can execute continued takeoff if the powerplant failure occurs at a point where the airplane can continue to a specified airspeed and altitude at the end of the runway commensurate with the airplane's performance capabilities and operating limitations		Medium
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can maintain the desired airspeed, ±5 knots after establishing a climb, and use flight controls in the proper combination as recommended by the manufacturer, to maintain best performance and trim		Medium
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		Medium
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can maintain the appropriate heading, ±5°, when powerplant failure occurs		Medium
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can coordinate with crew and execute the appropriate checklist(s) following the powerplant failure.		Medium

Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can perform communication with ATC and the evaluator, as appropriate for the situation.		Medium
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure during takeoff considering operational factors such as takeoff warning inhibit systems, runway/takeoff path length, surface conditions, environment, obstructions, and LAHSO operations.	Medium
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to brief the plan for a powerplant failure during takeoff, in a crew environment.	Medium
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to follow proper	Medium

		procedures or checklists in an emergency.	
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to correctly identify the inoperative engine (AMEL, AMES).	Medium
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing inability to climb or maintain altitude with an inoperative powerplant (AMEL, AMES).	Medium
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	Medium
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Medium

Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Medium
Conduct OEI Climb to En Route Altitude	Can conduct an OEI climb enroute at either V_{se} or greater, depending on conditions.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can recognize and correctly identify powerplant failure, execute memory items, and maintain positive airplane control.		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can coordinate with crew, if applicable, and complete the appropriate emergency procedures and checklist(s) for simulated propeller feathering or simulated powerplant shutdown.		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain the operating powerplant(s) within acceptable operating limits.		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can perform radio calls as appropriate		Medium

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can assess and proceed toward the nearest suitable airport.		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can coordinate with crew and execute the approach and landing checklists(s).		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant	Can maintain a stabilized approach, adjusting pitch and power as required, allowing no more than ¼-scale deflection		Medium

Failure (manual control)	of either the vertical or lateral guidance indications.		
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain a stabilized final approach from the FAF to the DA/DH allowing no more than ¼- scale deflection of either the vertical or lateral guidance indications and maintain the desired airspeed ±5 knots.		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain directional control and appropriate crosswind correction throughout the approach and landing or missed approach.		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can immediately execute the missed approach procedure if the required visual references for the runway are not distinctly visible and identifiable upon reaching the DA/DH,		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can execute a transition to a normal landing approach when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering upon reaching the DA/DH		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can perform smooth, timely, and correct control application before, during, and after touchdown or during the missed approach.		Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing failure to plan for a	Medium

		powerplant failure inflight or during an approach.	
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing improper airplane configuration.	Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	Medium

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing landing with a powerplant failure.	Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing missed approach with a powerplant failure.	Medium
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing maneuvering in IMC with a powerplant failure.	Medium
Conduct Holding	Can identify instrument navigation aids associated with the assigned hold.		High
Conduct Holding	Can apply the appropriate entry procedure for a standard, nonstandard, published, or non- published holding pattern.		High
Conduct Holding	Can change to the appropriate holding airspeed for the airplane and holding altitude to cross the holding fix at or below maximum holding airspeed		High
Conduct Holding	Can comply with the holding pattern leg length and other restrictions, if applicable, associated with the holding pattern.		High
Conduct Holding	Can comply with ATC reporting requirements.		High

Conduct Holding	Can use proper wind correction procedures to maintain the desired pattern and to arrive over the fix as close as possible to a specified time.		High
Conduct Holding	Can maintain the airspeed ±10 knots, altitude ±100 feet, headings ±10°, and accurately track a selected course, radial, or bearing.		High
Conduct Holding	Can use automation to include autopilot, flight director controls, and navigation displays associated with the assigned hold.		High
Conduct Holding	Can calculate fuel reserve calculations based on EFC times.		High
Conduct Holding		Can identify, assess, and manage risks, encompassing recalculating fuel reserves if assigned an unanticipated EFC time.	High
Conduct Holding		Can identify, assess, and manage risks, encompassing scenarios and circumstances that could result in minimum fuel or the need to declare an emergency.	High
Conduct Holding		Can describe scenarios that could lead to holding, including	High

		deteriorating weather at the planned destination.	
Conduct Holding		Can identify, assess, and manage risks, encompassing improper holding entry and improper wind correction while holding.	High
Conduct Holding		Can identify, assess, and manage risks, encompassing holding while in icing conditions.	High
Conduct Holding		Can identify, assess, and manage risks, encompassing improper automation management.	High
Conduct Instrument Takeoff	Can perform applicable procedures during takeoff to address the transition from visual flight to instrument flight for both the pilot flying (PF) and pilot monitoring (PM), to include the use and limitations of any flight guidance or visual systems in use.		Medium

Conduct Instrument Takeoff		Can demonstrate familiarization with operator's policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as directional control or stopping performance is concerned, and flight crews should be familiar with appropriate constraints related to braking reports and the obscuration of appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway contaminants and condition reporting.	Medium

Conduct Instrument Takeoff	Can execute normal takeoff at lowest applicable minima;		Medium
Conduct Instrument Takeoff	Can perform takeoff with failure of the flight guidance device or ground-based guidance system, at a critical point of the takeoff, unless these systems have failure characteristics that are extremely improbable.		Medium
Conduct Instrument Takeoff	Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		Medium
Conduct Instrument Takeoff	Can execute setting of the applicable avionics and flight instruments prior to initiating the takeoff		Medium
Conduct Instrument Takeoff	Can perform radio calls as appropriate		Medium
Conduct Instrument Takeoff	Can verify assigned/correct runway		Medium
Conduct Instrument Takeoff	Can perform clearing the arrival area area and execute taxiing into takeoff position and align the airplane on the runway centerline		Medium
Conduct Instrument Takeoff	Can maintain centerline and proper flight control inputs during the takeoff roll		Medium
Conduct Instrument Takeoff	can confirm takeoff power and proper engine and flight instrument indications prior to rotation making callouts, as appropriate, for the airplane or per the operator’s procedures		Medium
Conduct Instrument Takeoff	Can rotates and lift off at the recommended airspeed, establish the desired pitch attitude, and accelerate to the desired airspeed/ V-speed.		Medium
Conduct Instrument Takeoff	Can execute a smooth transition from visual meteorological conditions (VMC) to actual or simulated		Medium

	instrument meteorological conditions (IMC).		
Conduct Instrument Takeoff	Can maintain desired heading ±5° and desired airspeeds ±5 knots.		Medium
Conduct Instrument Takeoff	Can comply with ATC clearances and instructions issued by ATC , as appropriate		Medium
Conduct Instrument Takeoff	Can execute appropriate after-takeoff checklist(s) in a timely manner		Medium
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing selection of a runway based on aircraft performance and limitations, available distance, surface conditions, lighting, and wind	Medium
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing wake turbulence	Medium
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for rejected takeoff	Medium

Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for Engine failure in takeoff phase of flight with the ceiling or visibility below the minimums for an instrument approach at departure airport	Medium
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for Engine failure in climb phase of flight with the ceiling or visibility below the minimums for an instrument approach at departure airport	Medium
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to	Medium

		include planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife	
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for low altitude maneuvering including stall, spin, or CFIT	Medium
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for distractions, loss of situational awareness, or improper task management.	Medium
Conduct Lower than Standard Minimum Takeoff	Can conduct a Lower than Standard Minimum Takeoff in accordance with approved OpSpec C052.		Medium

Conduct Landing From a Precision Approach	Can perform proper reaction to significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH. Expected pilot response to failure after touchdown should be addressed as well.		High
Conduct Landing From a Precision Approach	Can recognize and execute appropriate actions in response to ground or navigation system faults, failures or abnormalities at any point during the approach and landing.		High
Conduct Landing From a Precision Approach		Can appreciate that pilots should be familiar with the need to report navigation system anomalies or discrepancies, failures of any lighting system (e.g., approach lights, runway lights, touchdown zone (TDZ) lights, centerline lights), or any other discrepancies that could be pertinent to operations.	High

Conduct Landing From a Precision Approach		Can demonstrate familiarization with operator's policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as directional control or stopping performance is concerned, and flight crews should be familiar with appropriate constraints related to braking reports and the obscuration of appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway contaminants and condition reporting.	High

Conduct Landing From a Precision Approach	Can maintain the desired airspeed, ±5 knots, and vertical and lateral guidance within ¼-scale deflection of the indicators during the descent from DA/DH to a point where visual maneuvering is used to accomplish a normal landing.		High
Conduct Landing From a Precision Approach	Can comply with all ATC advisories, such as NOTAMs, windshear, wake turbulence, runway surface, braking conditions, and other operational considerations.		High
Conduct Landing From a Precision Approach	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High
Conduct Landing From a Precision Approach	Can maintain positive airplane control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		High
Conduct Landing From a Precision Approach	Can demonstrate SRM or CRM, as appropriate.		High
Conduct Landing From a Precision Approach	Can apply runway incursion avoidance procedures.		High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing selection of an approach procedure and runway based on pilot capability, aircraft limitations,	High

		available distance, surface conditions, and wind.	
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing wake turbulence.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for missed approach	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for land and hold short operations (LAHSO)	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High

Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for distractions, loss of situational awareness, or improper task management.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for attempting to land from an unstable approach.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for flying below the glidepath.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for transitioning from instrument to visual	High

		references for landing.	
Conduct Missed Approach - OEI	Can execute an one engine inoperative missed approach from the MDA, DA/DH, or AH.		Medium
Conduct Missed Approach - OEI	Can execute an one engine inoperative missed approach from a low altitude that could result in a touchdown during go-around (balked or rejected landing).		Medium
Conduct Missed Approach - OEI	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance during an one engine inoperative missed approach.		Medium
Conduct Missed Approach - OEI	Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and initiate a positive rate of climb at the appropriate airspeed/V- speed, ±5 knots during an one engine inoperative missed approach.		Medium
Conduct Missed Approach - OEI	Can coordinate with crew and execute the appropriate procedures and checklist(s) in a timely manner during an one engine inoperative missed approach.		Medium
Conduct Missed Approach - OEI	Can comply with the published or alternate missed approach procedure during an one engine inoperative missed approach.		Medium
Conduct Missed Approach - OEI	Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		Medium

Conduct Missed Approach - OEI	Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure during an one engine inoperative missed approach.		Medium
Conduct Missed Approach - OEI	Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		Medium
Conduct Missed Approach - OEI	Can demonstrate effective CRM during an one engine inoperative missed approach.		Medium
Conduct Missed Approach - OEI	Can execute re-engagement of the autopilot at appropriate times during the one engine inoperative missed approach procedure.		Medium
Conduct Missed Approach - OEI	Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix, or other clearance limit, as appropriate, or as directed by the evaluator during an one engine inoperative missed approach.		Medium
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing failure to follow prescribed procedures during an one engine inoperative missed approach.	Medium
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing holding,	Medium

		diverting, or electing to fly the approach again during an one engine inoperative missed approach.	
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach during an one engine inoperative missed approach.	Medium
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing factors that might lead to executing an one engine inoperative missed approach procedure before the MAP or to a go-around below DA/MDA.	Medium
Conduct Missed Approach - OEI		Can identify, assess, and manage risks,	Medium

		encompassing failure to manage automated navigation and auto flight systems during an one engine inoperative missed approach.	
Conduct Nonprecision Approach		Can appreciate that there are environments in which using CDFA technique is not advisable or practical, for example airports that do not offer straight in non precision approaches.	High
Conduct Nonprecision Approach	Can perform the nonprecision instrument approaches selected by the instrutor/evaluator		High
Conduct Nonprecision Approach	Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		High
Conduct Nonprecision Approach	Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		High
Conduct Nonprecision Approach	Can Comply with all clearances issued by ATC .		High
Conduct Nonprecision Approach	Can recognize if any flight instrumentation is inaccurate		High

	or inoperative, and take appropriate action.		
Conduct Nonprecision Approach	Can coordinate with ATC if unable to comply with a clearance.		High
Conduct Nonprecision Approach	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		High
Conduct Nonprecision Approach	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High
Conduct Nonprecision Approach	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		High
Conduct Nonprecision Approach	Can maintain a stabilized descent to the appropriate altitude.		High
Conduct Nonprecision Approach	Can maintain no more than ¼ scale CDI deflection, airspeed ±5 knots of selected value, and altitude above MDA +50/-0 feet (to the VDP or MAP) during the final approach segment		High
Conduct Nonprecision Approach	Can execute the missed approach procedure if the required visual references are not distinctly visible and identifiable at the appropriate point or altitude for the approach profile, or execute a		High

	normal landing from a straight-in or circling approach.		
Conduct Nonprecision Approach	Can use a Multi-Function Display (MFD) and other graphical navigation displays, if insalled, to monitor position, track wind drift and other parameters to maintain desired flightpath.		High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to follow the correct approach procedure (e.g., descending too early, etc.).	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Selecting an incorrect navigation frequency.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to manage automated navigation and auto flight systems.	High

Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to ensure proper airplane configuration during an approach and missed approach.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing An unstable approach, including excessive descent rates.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Deteriorating weather conditions on approach.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Operating below the minimum descent altitude (MDA) or continuing a descent below decision altitude (DA) without proper	High

		visual references.	
Conduct Normal Approach and Landing	Can execute normal landings at the lowest applicable minima for each authorized flight guidance and/or visual system.		High
Conduct Normal Approach and Landing	Can perform manual rollout in low visibility at applicable minima. (except for aircraft using an automatic fail operational (FO) rollout system)		High
Conduct Normal Approach and Landing	Can perform landings at the limiting environmental conditions authorized for that operator with respect to wind, crosswind components, and runway surface friction characteristics		High
Conduct Normal Approach and Landing	Can coordinate with crew and execute after landing checklists(s).		High
Conduct Normal Approach and Landing	Can perform radio calls as appropriate		High
Conduct Normal Approach and Landing	Can maintain a ground track that ensures the desired traffic pattern will be flown taking into consideration obstructions and ATC		High
Conduct Normal Approach and Landing	Can confirm the airplane is aligned with the correct/assigned runway or landing surface.		High
Conduct Normal Approach and Landing	Can scan runway or landing surface and adjoining area for traffic and obstructions.		High
Conduct Normal Approach and Landing	Can select a suitable touchdown point considering wind, landing surface, and obstructions.		High

Conduct Normal Approach and Landing	Can perform establishing the recommended approach and landing configuration and airspeed, ±5 knots, and adjust pitch attitude and power as required to maintain a stabilized approach.		High
Conduct Normal Approach and Landing	Can maintain directional control and appropriate crosswind correction throughout the approach and landing.		High
Conduct Normal Approach and Landing	Can perform smooth, timely, and correct control application before, during, and after touchdown.		High
Conduct Normal Approach and Landing	Can execute touch down with the runway centerline between the main landing gear at the appropriate speed and pitch attitude at the runway aiming point markings -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High
Conduct Normal Approach and Landing	Can execute deceleration to taxi speed (20 knots or less on dry pavement, 10 knots or less on contaminated pavement) to within the calculated landing distance plus 25% for the actual conditions with the runway centerline between the main landing gear		High
Conduct Normal Approach and Landing	Can execute a timely go-around if the approach cannot be made within the tolerances specified above or for any other condition that may result in an unsafe approach or landing.		High
Conduct Normal Approach and Landing	Can apply runway incursion avoidance procedures.		High

Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing selection of a runway or approach path and touchdown area based aircraft limitations, available distance, surface conditions, and wind.	High
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing wake turbulence.	High
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing Go-Around/Rejected Landing	High
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing land and Hold Short Operations (LAHSO)	High
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft,	High

		terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, incorrect airport surface approach and landing, or improper task management.	High
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can execute procedure with smoothness and accuracy		High
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can operate the airplane within its limitations		High
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct PFD malfunction		Can apply aeronautical knowledge to	High

procedure (AGM 1 or DU1)		execution of the task	
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can apply crew coordination	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can conduct effective communication with the other crew members	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can manage crew cooperation	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can demonstrate good judgement and airmanship	High

Conduct Precision Approach	Can perform appropriate normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures		High
Conduct Precision Approach	Can perform procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.		High
Conduct Precision Approach		Can appreciate constraints for head winds, tail winds, crosswinds, and the effect of vertical and horizontal wind shear on automatic systems, flight directors (F/D), or other system (e.g., HUD, SVGS, etc.) performance. For systems such as HUDs that have a limited field of view (FOV), or synthetic	High

		reference systems, pilots should be familiar with the display limitations of these systems and expected pilot actions in the event that the aircraft reaches or exceeds a display limit capability.	
Conduct Precision Approach	Can execute types of instrument procedures approved for the air carrier (standard and special, lowest straight-in, orcircling minima, if applicable); according to the operators manuals, charts and checklists, on the aircraft type, model and series flown.		High
Conduct Precision Approach	Can use flight guidance and/or visual system(s) and their corresponding category(s) of minima for each authorized system;		High
Conduct Precision Approach	Can use NAVAID(s) and visual aids used (LVO/SMGCS lighting if applicable);		High
Conduct Precision Approach	Can apply Flightcrew procedures used (e.g., PF/PM duties, monitored approach, or call-outs);		High
Conduct Precision Approach		Can demonstrate familiarization with airport and runway characteristics typically experienced;	High

Conduct Precision Approach	Can perform relevant normal, non-normal, and environmental conditions. Training and evaluation need only be conducted using relevant and representative procedures and conditions (e.g., a representative mix of day, night, dusk, variable/patchy conditions, representative temperatures, landing runway altitudes, precipitation conditions, turbulence, and icing conditions); and		High
Conduct Precision Approach	Can respond appropriately to aircraft and ground system failures.		High
Conduct Precision Approach	Can perform the precision instrument approaches selected by the instrtuctor/evaluator.		High
Conduct Precision Approach	Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		High
Conduct Precision Approach	Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		High
Conduct Precision Approach	Can comply in a timely manner with all clearances, instructions, and procedures.		High
Conduct Precision Approach	Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		High
Conduct Precision Approach	Can coordinate with ATC if unable to comply with a clearance.		High
Conduct Precision Approach	Can maintain the appropriate airplane configuration and airspeed considering		High

	meteorological and operating conditions.		
Conduct Precision Approach	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High
Conduct Precision Approach	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		High
Conduct Precision Approach	Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		High
Conduct Precision Approach	Can maintain a stabilized final approach from the Final Approach Fix (FAF) to DA/DH allowing no more than ¼-scale deflection of either the vertical or lateral guidance indications and maintain the desired airspeed ±5 knots		High
Conduct Precision Approach	Can immediately initiate the missed approach procedures if the required visual references for the runway are not distinctly visible and identifiable ppon reaching the DA/DH.		High

Conduct Precision Approach	Can, upon reaching the DA/DH, perform a transition to a normal landing when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering		High
Conduct Precision Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to follow the correct approach procedure (e.g. descending below the glideslope, etc.).	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing selecting an incorrect navigation frequency.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	High

Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing an unstable approach, including excessive descent rates.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing deteriorating weather conditions on approach.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing continuing to descend below the Decision Altitude (DA)/Decision Height (DH) when the required visual references are not visible.	High

Conduct Rejected Takeoff	Can execute Rejected takeoff from a point prior to V1 (including an engine failure);		Medium
Conduct Rejected Takeoff	Can perform rejected takeoff requiring transfer of control (if applicable) for low-visibility takeoff minima where a flight guidance and/or vision system is required		Medium
Conduct Rejected Takeoff	Can perform rejected takeoff with failure of the flight guidance device or ground-based guidance system, at a critical point of the takeoff, unless these systems have failure characteristics that are extremely improbable.		Medium
Conduct Rejected Takeoff	Can execute aborted takeoff if the powerplant failure occurs at a point during the takeoff where the abort procedure can be initiated and the airplane can be safely stopped on the remaining runway		Medium
Conduct Rejected Takeoff	Can execute prompt reduction of power and maintain positive aircraft control using drag and braking devices, as appropriate, to come to a stop		Medium
Conduct Rejected Takeoff	Can coordinate with crew, if applicable, and complete the appropriate procedures, checklist(s), and radio calls following a rejected takeoff in a timely manner		Medium
Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing a powerplant failure or other malfunction during takeoff.	Medium

Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing failure to maintain directional control following a rejected takeoff	Medium
Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing rejecting takeoff with inadequate stopping distance	Medium
Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing a high-speed abort distractions, loss of situational awareness, or improper task management	Medium
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify currency and integrity of aircraft navigation data		High

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can obtain a receiver autonomous integrity monitoring (RAIM) prediction for the planned RNP operation		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify successful completion of RNP system self-tests;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform initialization navigation system position		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform retrieval of an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High
Conduct RNP operations in the United States, oceanic and remote continental airspace,	Can execute an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High

and in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform adherence to speed and/or altitude constraints associated with RNP operations		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can select the appropriate STAR or SID for the active runway in use and be familiar with procedures to deal with a runway change		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify waypoints and flight plan programming;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform a manual or automatic runway update (with takeoff point shift for Inertial Reference Units (IRU) only);		High

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying direct to a waypoint		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying a course/track to a waypoint		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform interception of a course/track		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform selecting/arming the navigation system for an ILS or GLS transition		High
Conduct RNP operations in the United States, oceanic and remote continental airspace,	Can perform insertion and deletion of a route discontinuity;		High

and in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can confirm exclusion of a specific navigation aid or navigation aid type (distance measuring equipment (DME) and very high frequency omni-directional range (VOR) only);		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify the RNP value set in the flight management system (FMS) matches the equipment capability and authorizations as annotated in the flight plan		High
Conduct Taxi	Low visibility taxi and ground operations should be trained to the extent practical and beneficial. Such training should address operations at typical airports or alternately, at airports frequently experiencing low-visibility conditions, complex airports on the operator's route system, airports with particular low visibility ground movement difficulties, or rarely used but significant contingency airports, as determined appropriate by the operator.		High
Conduct Taxi	perform either PF or PM duties, unless otherwise limited by the operator's policies or aircraft		High

	characteristics (e.g., single HUD).		
Conduct Taxi	Can record taxi instructions, respond to taxi clearances, and review taxi routes on the airport diagram.		High
Conduct Taxi	Can use an airport diagram or taxi chart during taxi		High
Conduct Taxi	Can comply with ATC clearances and instructions and observe all runway hold lines, ILS critical areas, beacons, and other airport/taxiway markings and lighting		High
Conduct Taxi	Can coordinate with crew, if applicable, and complete the appropriate checklist(s) prior to and during taxi		High
Conduct Taxi	Can maintain situational awareness during taxi		High
Conduct Taxi	Can maintain correct and positive airplane control, proper speed, appropriate use of wheel brakes and reverse thrust		High
Conduct Taxi	Can maintain separation between other aircraft, vehicles, and persons to avoid an incursion/incident/accident		High
Conduct Taxi	Can use aircraft exterior lighting for day and night operations		High
Conduct Taxi		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing confirmation	High

		or expectation bias as related to taxi instructions	
Conduct Taxi		Can identify, assess, and manage risks, encompassing a taxi route or departure runway change	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing low visibility taxi operations	High
Conduct Taxi		Can conduct a briefing on the timing and execution of aircraft checklists and company communications at the appropriate times and locations, ensuring the pilot who is not taxiing the aircraft can be available to participate in verbal coordination with the pilot	High

		who is taxiing the aircraft	
Conduct Taxi		Can consider the anticipated duration of the taxi operation, the locations of hot spots/complex intersections and runway crossings, and the visibility along the taxi route when briefing tasks or accomplishing checklists	High
Conduct Taxi		Can manage pilot workload and heads-down time during taxi by conducting predeparture checklists, including setting the takeoff flap setting, when the aircraft is stopped or while taxiing straight ahead on a taxiway without complex intersections and hot spots	High

Conduct Taxi		Can maintain a sterile cockpit during taxi operations	High
Conduct Taxi	Can use airport diagram to follow progress of the taxi operation		High
Conduct Taxi		Can manage the risk of expectation bias, and follow the clearance or instructions that are actually received, and not the ones they expected to receive.	High
Conduct Taxi		Can be alert to ATC instructions to hold short of an ILS critical area holding line.	High
Conduct Taxi		Can monitor the aircraft's progress on the airport diagram to ensure that the pilot taxiing the aircraft is following the instructions received from the ATC while maintaining outside vigilance	High

Conduct Taxi		Can determine whether or not to accept last-minute turnoff instructions from ATC, refusing such clearance unless the crew clearly understands the instructions and are certain that they can safely comply.	High
Conduct Taxi		Can respond to all hold short instructions, and verifies with other crew members or ATC to ensure agreement and understanding	High
Conduct Taxi	Can execute bringing the aircraft to a complete stop, or be in a phase of taxiing that has no risk of a runway incursion before continuing with operational duties and checklists		High
Conduct Taxi		Can comply with hold short or crossing clearance when approaching an entrance to a runway.	High
Conduct Taxi		Can explain or demonstrate proper actions if the crew becomes	High

		disoriented: never stop on a runway, and initiate communications with ATC to regain orientation.	
Conduct Taxi		Can demonstrate vigilance when instructed to taxi and “Line Up and Wait”. Turns Traffic Alert and Collision Avoidance System (TCAS)/traffic advisory systems (TAS) on in order obtain awareness of any aircraft that may be landing on your runway.	High
Conduct Taxi		Can resolve all misunderstandings or disagreements regarding taxi clearance to the satisfaction of all flightcrew members before taxiing the aircraft.	High

Conduct Taxi	Can apply use of the airport diagram after receiving a clearance, and confirms and verbalizes the assigned runway and taxi route, including any instructions to hold short of, or cross, a runway. If there is any doubt, speaks up and resolve the uncertainty before taxi		High
Conduct Taxi		Can coordinate with other flightcrew member(s) if stopping and resuming the monitoring of the ATC frequency, for example when it becomes necessary for a flightcrew member to stop monitoring any ATC frequency to prepare the aircraft for takeoff or landing.	High
Conduct Taxi		Can assess any upcoming hold short instructions or clearances that could be misinterpreted prior to stopping and after resuming monitoring of the taxi. An example may include: “I’m	High

		heads-down, right turn ahead at Alpha," or "I'm back, any changes?"	
Conduct Taxi		Can appreciate that time away from monitoring ATC should be avoided with complex taxi routing or crossing of runways. Any instructions or information received or transmitted during that flightcrew member's absence from the ATC frequency should be reviewed and confirmed upon his or her return.	High
Conduct Taxi		Can coordinate verbally at complex intersections to be sure that: the intersection is correctly identified and confirmed using the airport diagram and the heading indicator	High

Conduct Taxi		Can state "approaching (specific runway number) hold short line. Before crossing any hold short line, the flightcrew should visually scan to the left and to the right, including the full length of the runway and its approach paths, and coordinate verbally (e.g., "clear right/left" or that the scan area is not clear).	High
Conduct Taxi		Can coordinate verbally and agree on the runway assigned by ATC, the upcoming assigned exit, and any restrictions, such as hold short points of an intersecting runway and the aircraft's parking area after landing	High

Conduct Taxi	Can execute turning on the rotating beacon whenever an engine is running		High
Conduct Taxi	Can execute turning on navigation, position, anti-collision, and logo lights, if available, to signal intent to other pilots prior to commencing taxi		High
Conduct Taxi	Can execute turning on the taxi light when the aircraft is moving or intending to move on the ground, and turning it off when stopped or yielding or as a consideration to other pilots or ground personnel		High
Conduct Taxi	Can execute illuminating all lights when crossing a runway when appropriate		High
Conduct Taxi		Can consider any adverse effects to safety that illuminating the forward-facing lights will have on the vision of other pilots or ground personnel during runway crossings, and adjust operation accordingly	High
Conduct use of FMS	Can perform use of the automatic throttle, flight management computer, or other speed management system, if applicable.		High

Conduct use of FMS		Can manage the risk of errors when receiving a change to assigned routing by ensuring the waypoints sequence depicted by their navigation system matches the route depicted on the appropriate chart(s) and their assigned route	High
Conduct use of FMS	Can verify currency of aircraft navigation data.		High
Conduct use of FMS	Can perform flying a course/track to a waypoint.		High
Conduct use of FMS	Can perform interception of a course/track		High
Conduct use of FMS	Can comply with a vectored off and execute rejoining a procedure.		High
Conduct use of FMS	Can determine cross-track error/deviation		High
Conduct use of FMS	Can execute insertion and deletion of a route discontinuity		High
Conduct use of FMS	Can execute insertion and delete a holding pattern		High
Conduct use of FMS	Can verify successful completion of RNAV system self-tests		High
Conduct use of FMS	Can execute initialization of RNAV system position		High
Conduct use of FMS	Can execute retrieval and flying of a DP or STAR with appropriate transition		High

Conduct use of FMS	Can comply with speed and/or altitude constraints associated with a DP or STAR.		High
Conduct use of FMS	Can verify waypoints and flight plan programming		High
Conduct use of FMS	Can perform flying direct to a waypoint		High
Conduct use of FMS	Can perform a complex SID consisting of multiple altitude and speed constraints		High
Conduct use of FMS	Can perform a complex STAR consisting of multiple altitude and speed constraints		High
Conduct use of FMS	Can demonstrate general awareness of all three styles of flight director		High
Conduct use of FMS	Can identify symbology available in synthetic vision system		High
Conduct use of FMS	Can differentiate between conformal and non-conformal scaling in the HUD and synthetic vision		High
Conduct use of FMS	Can perform transition between automatic (FMS-controlled) to manual mode and back in the event of a flightpath deviation due to input error or system malfunction.		High
Conduct use of HUD	Conduct takeoff and departure using HUD to ATP ACS standards		High
Conduct use of HUD	Conduct approach and landing using HUD to ATP ACS standards		High
Conduct use of HUD	Can use caged, uncaged and clear modes in crosswind conditions		High
Conduct use of HUD	Can relate glidepath angle to the symbolic runway.		Medium
Conduct use of HUD	Can use the flare symbol as a cue in the Honeywell HUD Model 2020 and as guidance in the HUD II.		High

Conduct use of HUD	Can perform approach into the top of an undercast during daylight and night conditions.		High
Conduct use of PlaneView System, if applicable	Can perform use of the PlaneView system installed in the full flight training equipment		High
Understand Avionics and communications - emergency locator transmitter.		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - emergency locator transmitter.		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - emergency locator transmitter.		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - emergency locator transmitter.		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can apply monitoring procedures for each phase of flight (e.g., monitor PROG or LEGS page)		High
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can demonstrate familiarization with automatic and/or manual setting of the required RNP value		High
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can demonstrate familiarization with the navigation equipment regarding lateral and vertical capture from an RNP routing to an instrument landing system (ILS) or Ground Based Augmentation System (GBAS) Landing System (GLS)		High
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which	Can demonstrate how offsets are applied, the functionality of their particular navigation system and the need to advise air traffic control (ATC) if this functionality is not available		High

adopt ICAO standards for RNP operations.			
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can apply receiver/transmitter (R/T) phraseology for RNP applications		High
Understand Crew and Passenger Emergency Equipment - emergency exits		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Crew and Passenger Emergency Equipment - emergency exits		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Crew and Passenger Emergency Equipment - emergency exits		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Crew and Passenger Emergency		Can identify, assess, and manage risks encompassing	High

Equipment - emergency exits		failure to monitor and manage automated systems.	
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High

Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and	High

		Runway excursions	
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can appreciate that take off distance numbers provided by the AFM are the most restrictive result of numerous part 25 requirements	High
Understand determining climb performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing possible differences	High

		between calculated performance and actual performance	
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and runway excursions	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High

Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining weight and balance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining weight and balance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand evacuation procedures and crew duties		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Ice Protection - anti-ice & de-ice.		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Ice Protection - anti-ice & de-ice.		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Ice Protection - anti-ice & de-ice.		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Ice Protection - anti-ice & de-ice.		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Ice Protection - pitot-static system protection		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Ice Protection - pitot-		Can identify, assess, and manage risks	High

static system protection		encompassing failure to follow appropriate checklists or procedures	
Understand Ice Protection - pitot-static system protection		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Ice Protection - pitot-static system protection		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Ice Protection airfoil surfaces		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Ice Protection airfoil surfaces		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Ice Protection airfoil surfaces		Can identify, assess, and manage risks encompassing improper	High

		management of a system failure	
Understand Ice Protection airfoil surfaces		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Ice Protection windshield		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Ice Protection windshield		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Ice Protection windshield		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Ice Protection windshield		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand OEM checklist philosophy		Can appreciate that while there are no defined memory items in the AFM, pilots should still be familiar enough with the aircraft to be able to perform initial and critical items without first referencing associated documentation. In addition, pilots are expected to don oxygen masks promptly when appropriate (e.g., when smoke is detected).	High
Understand OEM checklist philosophy		Can appreciate that abnormal and emergency procedures are presented in quick reference handbooks (QRH) of an identical format for all three aircraft. Although some	High

		individual steps may differ or use different acronyms, these steps are carried out under the guidance of the handbook in a logical decision-making manner	
Understand Pitot Static System - associated instruments and the power source for those flight instruments		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Pitot Static System - associated instruments and the power source for those flight instruments		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Pitot Static System - associated instruments and the power source for those flight instruments		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Pitot Static System - associated instruments and the power source for		Can identify, assess, and manage risks encompassing failure to monitor and	High

those flight instruments		manage automated systems.	
Understand Pitot Static System - Operation and power sources for other flight instruments		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Pitot Static System - Operation and power sources for other flight instruments		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Pitot Static System - Operation and power sources for other flight instruments		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Pitot Static System - Operation and power sources for other flight instruments		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Pneumatic and environmental system - supply for ice protection systems		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Pneumatic and environmental system - supply for ice protection systems		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Pneumatic and environmental system - supply for ice protection systems		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Pneumatic and environmental system - supply for ice protection systems		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Powerplant - deicing, anti-icing		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - deicing, anti-icing		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Powerplant - deicing, anti-icing		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - deicing, anti-icing		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Conduct EFVS Operations	Per § 61.66(b)(2)(i) can integrate the following: it is necessary that the flight training curriculum includes preflight and in-flight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes, and associated systems, and		High

	adjustments for brightness and contrast under day and night conditions. It may be beneficial to perform these tasks in the curriculum using either the manufacturer's recommended procedures or procedures applicable to the operator.		
Conduct EFVS Operations	Per § 61.66(b)(2)(ii) can integrate the following: it is necessary that the flight training curriculum includes proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings. It may be beneficial for the curriculum to allow pilots to become familiar with the use of installed equipment such as an EFVS in all phases of flight.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can use a sample of approach types for the EFVS operation being trained (e.g., precision and nonprecision, if applicable).		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) use a sample of crosswind conditions and offset angles that emphasize the challenges of operating with the limited FOV with an EFVS.		Medium
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can conduct EFVS operations in visibilities less than IAP minimum visibilities. This may not be practical if training is conducted in an aircraft. If the training is accomplished in a		Low

	full flight simulator (FFS), conduct the training with the enhanced visibilities representative of the EFVS sensor performance.		
Conduct EFVS Operations	Per § 61.66(b)(2)(iv) can integrate the following: it is necessary that the flight training curriculum includes determining enhanced flight visibility. The curriculum can help pilots learn how to determine enhanced flight visibility using techniques and methods similar to the techniques and methods used for determining flight visibility when conducting an approach without an EFVS.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(v) can integrate the following: it is necessary that the flight training curriculum includes identifying required visual references appropriate to EFVS operations. The curriculum can help pilots learn how to identify required visual references using an EFVS with techniques and methods similar to the techniques and methods used for identifying the required visual references when conducting an approach without the use of an EFVS. The PM may use the PM display, if available, to assist the PF in this task.		High

Conduct EFVS Operations	Per § 61.66(b)(2)(vi) can integrate the following: it is necessary that the flight training curriculum includes transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment. The curriculum can help pilots learn how to acquire visual references with natural vison at 100 feet during an EFVS-100 operation. There are many acceptable techniques for identifying the visual references with natural vision while the pilot continues using the EFVS to provide the enhanced flight visibility required for the operation.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) use procedures applicable to the PF and PM, crew briefings, procedures, callouts, and coordination items for EFVS operations, including annunciation of published minimums during operation below the DA/DH or MDA.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct procedures at 100 feet during an EFVS-100 operation.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct EFVS failure procedures (procedures for an EFVS failure or a system degradation during an EFVS operation).		High
Conduct EFVS Operations	Can conduct preflight and inflight preparation of EFVS equipment for EFVS operations, including EFVS setup and use		High

	of display, controls, modes and associated systems, and adjustments for brightness and contrast under day and night conditions.		
Conduct EFVS Operations	Can use proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings.		High
Conduct EFVS Operations	Can use proper piloting techniques for the use of EFVS during instrument ap proaches, to include operations below DA/DH or MDA as applicable to the EFVS operations to be conducted, under both day and night conditions.		High
Conduct EFVS Operations	Can determine enhanced flight visibility.		High
Conduct EFVS Operations	Can identify required visual references appropriate to EFVS operations.		High
Conduct EFVS Operations	Can adjust when transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment.		High
Conduct EFVS Operations	Can conduct normal, abnormal, emergency, and crew coordination procedures when using an EFVS.		High

SIM 4 Learning Objectives

SIM 4 Briefing Items

Tasks	Knowledge & Cognitive Learning Objectives
Understand determining landing performance per AFM	Can explain the parameters and importance of a stabilized approach

Understand determining landing performance per AFM	Can explain the importance of accurate and timely assessments of landing distance
Understand determining landing performance per AFM	Can explain the origin and use of runway Declared Distances
Understand determining landing performance per AFM	Can identify and manage risks associated with runway overruns during the landing
Understand determining landing performance per AFM	Can explain the risks associated with tailwind landings and landings on contaminated runways
Understand determining landing performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining landing performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining landing performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining landing performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Conduct after landing, parking and securing	Can explain parking, shutdown, securing, and postflight inspection.
Conduct Before Takeoff Checks	Can explain the purpose of checking each item during before takeoff checks
Conduct Before Takeoff Checks	Can describe how to detect malfunctions
Conduct Before Takeoff Checks	Can ensure the aircraft is in safe operating condition
Conduct Before Takeoff Checks	Can explain deicing and anti-icing procedures
Conduct Before Takeoff Checks	Can describe how to conduct a proper pre-takeoff contamination check
Conduct Before Takeoff Checks	Can describe how adverse weather conditions effect takeoff performance (e.g., snow, ice, gusting crosswinds, low-visibility)
Conduct Before Takeoff Checks	Can give a before takeoff briefing
Conduct Circling Approach	Can explain elements related to circling approach procedures and limitations including approach categories and related airspeed restrictions

Conduct Departure Procedures	Can explain takeoff minimums
Conduct Departure Procedures	Can explain obstacle Departure Procedure (ODP), including Visual Climb over the Airport (VCOA) and Diverse Vector Area (Radar Vectors)
Conduct Departure Procedures	Can explain Standard Instrument Departures (SID), including RNAV departure
Conduct Departure Procedures	Can explain required climb gradients
Conduct Departure Procedures	Can explain U.S. Terminal Procedures Publications and En Route Charts
Conduct Departure Procedures	Can explain proper use of a Flight Management System (FMS) to follow a DP
Conduct Departure Procedures	Can explain pilot/controller responsibilities, communication procedures, and ATC services available to pilots
Conduct Departure Procedures	Can explain two-way radio communication failure procedures after takeoff
Conduct Departure Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)
Conduct Departure Procedures	Can explain communication failure procedures
Conduct Emergency Procedure - Decompression	Can explain airplane decompression.
Conduct Emergency Procedure - Decompression	Can explain declaring an emergency and selection of a suitable airport or landing location
Conduct Emergency Procedure - Emergency Decent	Can explain situations that would require an emergency descent (e.g., depressurization, smoke, or engine fire).
Conduct Emergency Procedure - Emergency Decent	Can explain declaring an emergency and selection of a suitable airport or landing location
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can explain the procedures used during a powerplant failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required.

Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can explain operational considerations to include: airplane performance, takeoff warning systems, runway length, surface conditions, density altitude, wake turbulence, environmental conditions, obstructions
Conduct OEI Climb to En Route Altitude	Can explain the OEI climb to en route altitude OEM procedure to include an understanding of the difference between climbing at V_{SE} vs. a greater speed per the OEM procedure.
Conduct Go-Around/Rejected Landing	Can describe Proper airborne system use for go-around, including consideration of height loss during transition to a go-around, performance assurance for obstacle clearance, management of any necessary mode changes, and assurance of appropriate vertical and lateral flightpath tracking.
Conduct Go-Around/Rejected Landing	Can explain stabilized approach, to include energy management concepts.
Conduct Go-Around/Rejected Landing	Can explain effects of atmospheric conditions, including wind and density altitude on a go-around or rejected landing.
Conduct Go-Around/Rejected Landing	Can explain wind correction techniques on takeoff/departure and approach/landing.
Conduct Go-Around/Rejected Landing	Can explain situations and considerations on approach that could require a go-around/rejected landing, to include the inability to comply with a LAHSO clearance.
Conduct Go-Around/Rejected Landing	Can explain Go-around/rejected landing procedures, the importance of a timely decision, and appropriate airspeed/V-speeds for the maneuver.
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status
Conduct Landing From a Circling Approach	Can explain elements related to the pilot's responsibilities, and the environmental, operational, and meteorological factors that affect landing from a circling approach.

Conduct Landing From a Circling Approach	Can explain approach lighting systems and runway and taxiway signs, markings and lighting.
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can explain airplane flight characteristics when flaps, leading edge devices, and other similar devices malfunction or become inoperative.
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can explain other airplane system limitations when landing at a high speed.
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can explain how to determine required landing distance and a suitable runway for landing.
Conduct Missed Approach	Can explain that when executing a missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure
Conduct Missed Approach	Can explain elements related to missed approach procedures to include reference to standby or backup instruments.
Conduct Missed Approach	Can explain limitations associated with standard instrument approaches, including while using an FMS or autopilot, if equipped.
Conduct Nonprecision Approach	Can explain that unstabilized approaches are a key contributor to CFIT events, and explain that present NPAs are designed with and without stepdown fixes in the final approach
Conduct Nonprecision Approach	Can explain why stepdowns flown without a constant descent will require multiple thrust, pitch, and altitude adjustments inside the final approach fix (FAF), and can explain that these adjustments increase pilot workload and potential errors during a critical phase of flight.

Conduct Nonprecision Approach	Can explain that the practice commonly referred to as “dive and drive,” can result in extended level flight as low as 250 feet above the ground in instrument meteorological conditions (IMC) and shallow or steep final approaches.
Conduct Nonprecision Approach	Can explain that a stabilized approach is a key feature to a safe approach and landing. Can explain that operators are encouraged by the FAA and the International Civil Aviation Organization (ICAO) to use the stabilized approach concept to help eliminate CFIT.
Conduct Nonprecision Approach	Can explain that the stabilized approach concept is characterized by maintaining a stable approach speed, descent rate, vertical flightpath, and configuration to the landing touchdown point
Conduct Nonprecision Approach	Can explain that precision IAPs and approach procedures with vertical guidance (APV) have a continuous descent approach profile in their design.
Conduct Nonprecision Approach	Can explain that NPAs were not originally designed with this vertical path, but may easily be flown using the CDFA (continuous descent final approach) technique.
Conduct Nonprecision Approach	Can explain why Flying NPAs with a continuous descent profile will provide a safety advantage over flying approaches using the “dive and drive” technique.
Conduct Nonprecision Approach	Can explain that CDFA is a technique for flying the final approach segment of an NPA as a continuous descent. The technique is consistent with stabilized approach procedures and has no level-off.

Conduct Nonprecision Approach	Can explain the six advantages of CDFA: Increased safety by employing the concepts of stabilized approach criteria and procedure standardization; Improved pilot situational awareness (SA) and reduced pilot workload; Improved fuel efficiency by minimizing the low-altitude level flight time; Reduced noise level by minimizing the level flight time at high thrust settings; Procedural similarities to APV and precision approach operations; Reduced probability of infringement on required obstacle clearance during the final approach segment.
Conduct Nonprecision Approach	Can explain that CDFA requires no specific aircraft equipment other than that specified by the title of the NPA procedure and that Pilots can safely fly suitable NPAs with CDFA using basic piloting techniques, aircraft flight management systems (FMS) and RNAV systems, or by manually computing rate of descent.
Conduct Nonprecision Approach	Can calculate a rate of descent for VDA (see example in this paragraph)
Conduct Nonprecision Approach	Can explain that some approach characteristics (e.g., circling-only minima) and environmental factors (e.g., icing) could make the use of CDFA inadvisable.
Conduct Nonprecision Approach	Can explain procedures and limitations associated with a nonprecision approach, including the differences between Localizer Performance (LP) and Lateral Navigation (LNAV) approach guidance
Conduct Nonprecision Approach	Can explain navigation system displays and annunciations, modes of operation, and RNP lateral accuracy values associated with an RNAV (GPS) approach.
Conduct Nonprecision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).

Conduct Nonprecision Approach	Can explain criteria for a stabilized approach, to include energy management concepts.
Conduct Visual Approach (VFR Procedures)	Can explain the visual approach procedure.
Conduct nosewheel steering - Nosewheel Steering failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Conduct Recovery From Unusual Flight Attitudes	Can explain procedures for recovery from unusual attitudes in this aircraft type
Conduct Recovery From Unusual Flight Attitudes	Can explain unusual flight attitude causal factors, including physiological factors, system and equipment failures, and environmental factors
Conduct Recovery From Unusual Flight Attitudes	Can explain and reference the operating envelope and structural limitations for the airplane
Conduct Recovery From Unusual Flight Attitudes	Can explain the effects of engine location, wing design, and other specific design characteristics that could affect aircraft control during the recovery in this aircraft type
Conduct Steep Turns	Can explain energy management required during steep turns
Conduct Steep Turns	Can explain aerodynamics associated with steep turns, to include: Coordinated and uncoordinated flight
Conduct Steep Turns	Can explain aerodynamics associated with steep turns, to include: Overbanking tendencies as relevant to this aircraft type
Conduct Steep Turns	Can explain maneuvering speed, including the impact of weight changes
Conduct Steep Turns	Can explain load factor and accelerated stalls as relevant to this aircraft type
Conduct Steep Turns	Can explain relationship between rate and radius of turn
Conduct Taxi	Can explain the information available on an airport diagram, chart supplement and NOTAMS
Conduct Taxi	Can interpret taxi instructions including published taxi routes
Conduct Taxi	Can identify airport and runway markings, signs, and lights

Conduct Taxi	Can describe proper procedures for entering or crossing runways
Conduct Taxi	Can explain procedures for taxi on one engine
Conduct Taxi	Can explain the hazards of low visibility taxi operations
Conduct Taxi	Can describe appropriate aircraft lighting for day and night operations
Conduct Taxi	Can describe appropriate flight deck activities prior to taxi, including route planning, identifying the location of Hot Spots, and coordinating with crew
Conduct Taxi	Can identify The runway and taxiway characteristics concerning width, safety areas, obstacle free zones, markings, hold lines, signs, holding spots, runway slope, suitability of threshold crossing height (TCH), critical area protection, taxiway position markings, runway distance remaining markings, runway distance remaining signs, and LVO/SMGCS should be addressed.
Conduct Taxi	Can explain the definition of a runway incursion: Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
Conduct Taxi	Can explain why thorough planning for taxi operations is essential for a safe operation
Conduct Taxi	Can conduct briefing of the expected taxi route to include any hold short lines and runways to cross, hot spots, and any other potential conflicts. (Once taxi instructions are received, the pretaxi route should be reviewed and monitored. It is essential that any changes to the taxi route be understood by all crewmembers)

Conduct Taxi	Can identify critical locations on the taxi route, where verbal coordination between the PIC and the SIC is important to avoid a runway incursion. (e.g., hot spots/complex intersections, crossing intervening runways, entering and lining up on the runway for takeoff, and approaching and lining up on the runway for landing)
Conduct Taxi	Can conduct briefing of requirements and special considerations during low visibility operations such as: the low visibility taxi chart, if published for the airport
Conduct Taxi	Can maintain knowledge of the aircraft's precise position throughout the taxi operation and mentally calculate the next location on the route that will require increased attention (e.g., a turn onto another taxiway, an intersecting runway, or hot spots)
Conduct Taxi	Can interpret and use all visual aids, and signage and lighting on the airport surface
Conduct Taxi	Can write down complex taxi instructions or copy taxi instructions into the scratch pad of the CDU
Conduct Taxi	Can explain that before entering a runway for takeoff, the flightcrew should verbally coordinate to ensure correct flap setting, identification of the runway, compass heading, FMC entry, and receipt of the proper ATC clearance to use that runway
Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).

Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable
Understand Avionics and Communications - HUD	Can identify all HUD symbology
Understand Avionics and Communications - HUD	Can explain the FPV
Understand Avionics and Communications - HUD	Can explain non-conformal LDI
Understand Avionics and Communications - HUD	Can recognize unusual attitudes when using the HUD
Understand Avionics and Communications - HUD	Can describe crew coordination when using the HUD
Understand Avionics and Communications - HUD	Can describe crew briefings and callouts
Understand Avionics and Communications - HUD	Can describe duties of the pilot flying and pilot monitoring when using HUD
Understand Avionics and Communications - HUD	Can interpret HUD II symbology including caged FPV, non-conformal LDI, and unusual attitudes
Understand Avionics and communications - Radar	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - Radar	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Radar	Can explain system or component limitations
Understand Avionics and communications - Radar	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Radar	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Radar	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - Radar	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Radar	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Avionics and communications - terrain awareness/warning/alert systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - terrain awareness/warning/alert systems	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - terrain awareness/warning/alert systems	Can explain system or component limitations
Understand Avionics and communications - terrain awareness/warning/alert systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - terrain awareness/warning/alert systems	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - terrain awareness/warning/alert systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - terrain awareness/warning/alert systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - terrain awareness/warning/alert systems - (EGPWS) Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can apply the knowledge items specified in AC120-55C
Understand Avionics and communications - traffic awareness/warning/avoidance systems - TCAS Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - transponder	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - transponder	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - transponder	Can explain system or component limitations
Understand Avionics and communications - transponder	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Understand Avionics and communications - transponder	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - transponder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - transponder	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - transponder	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Crew and Passenger Equipment - oxygen system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Crew and Passenger Equipment - oxygen system	Can describe the operation of the airplane systems and components using correct terminology
Understand Crew and Passenger Equipment - oxygen system	Can explain system or component limitations
Understand Crew and Passenger Equipment - oxygen system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Crew and Passenger Equipment - oxygen system	Can explain immediate action items or memory items, if appropriate
Understand Crew and Passenger Equipment - oxygen system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Crew and Passenger Equipment - oxygen system	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Crew and Passenger Equipment - oxygen system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Crew and Passenger Equipment - passenger oxygen system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Understand Crew and Passenger Equipment - passenger oxygen system	Can describe the operation of the airplane systems and components using correct terminology
Understand Crew and Passenger Equipment - passenger oxygen system	Can explain system or component limitations
Understand Crew and Passenger Equipment - passenger oxygen system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Crew and Passenger Equipment - passenger oxygen system	Can explain immediate action items or memory items, if appropriate
Understand Crew and Passenger Equipment - passenger oxygen system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Crew and Passenger Equipment - passenger oxygen system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Crew and Passenger Equipment - passenger oxygen system - Inadvertent Oxygen Mask Activation	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Crew and Passenger Equipment - passenger oxygen system - Overweight Landing procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can describe the operation of the airplane systems and components using correct terminology
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain system or component limitations
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain immediate action items or memory items, if appropriate

Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data

Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Accelerate-Stop Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely decisions in relation V_1
Understand determining accelerate-stop / accelerate-go distance per AFM	Can state the different causes of RTOs
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the difference between Takeoff Distance and Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the Balanced Field Concept
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain why V_1 can be no less than V_{MCG} nor can be no more than V_R
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.
Understand determining accelerate-stop / accelerate-go distance per AFM	Can conduct a complete takeoff briefing and explain its importance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely and correct decisions related to rejected takeoffs (RTO)
Understand determining climb performance per AFM	Can explain why OEI data may not ensure climb gradient compliance nor obstacle clearance

Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for “all engine” or “engine inoperative” missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around procedures, acceleration segments or transition following an engine failure between the specified “all-engine lateral flightpath” (or radar vectors) and any specified “engine-inoperative lateral flightpath,” using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.
Understand determining climb performance per AFM	Can explain considerations for OEI departure development
Understand determining climb performance per AFM	Can state the definition of takeoff segment
Understand determining climb performance per AFM	Can state the definitions of gross and net flightpath
Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining climb performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators
Understand determining climb performance per AFM	Can locate FAA TALPA videos online
Understand determining climb performance per AFM	Can describe the segments of an instrument departure procedure

Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures
Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining descent performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining descent performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining descent performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining descent performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining fuel requirements per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining fuel requirements per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight

Understand determining fuel requirements per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining performance with an inoperative powerplant for all phases of flight per AFM - Engine Failure Considerations procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand Hydraulic system - allowable types of fluid	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Hydraulic system - allowable types of fluid	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - allowable types of fluid	Can explain system or component limitations
Understand Hydraulic system - allowable types of fluid	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Understand Hydraulic system - allowable types of fluid	Can explain immediate action items or memory items, if appropriate
Understand Hydraulic system - allowable types of fluid	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Hydraulic system - allowable types of fluid	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Hydraulic system - allowable types of fluid	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Hydraulic system - capacity	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Hydraulic system - capacity	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - capacity	Can explain system or component limitations
Understand Hydraulic system - capacity	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Hydraulic system - capacity	Can explain immediate action items or memory items, if appropriate
Understand Hydraulic system - capacity	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Hydraulic system - capacity	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Hydraulic system - capacity	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Hydraulic system - pressure	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Understand Hydraulic system - pressure	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - pressure	Can explain system or component limitations
Understand Hydraulic system - pressure	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Hydraulic system - pressure	Can explain immediate action items or memory items, if appropriate
Understand Hydraulic system - pressure	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Hydraulic system - pressure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Hydraulic system - pressure	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Hydraulic system - pumps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Hydraulic system - pumps	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - pumps	Can explain system or component limitations
Understand Hydraulic system - pumps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Hydraulic system - pumps	Can explain immediate action items or memory items, if appropriate
Understand Hydraulic system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Hydraulic system - pumps	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Hydraulic system - pumps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Hydraulic system - regulators/accumulators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Hydraulic system - regulators/accumulators	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - regulators/accumulators	Can explain system or component limitations
Understand Hydraulic system - regulators/accumulators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Hydraulic system - regulators/accumulators	Can explain immediate action items or memory items, if appropriate
Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Hydraulic system - regulators/accumulators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Hydraulic system - reservoirs	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Hydraulic system - reservoirs	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - reservoirs	Can explain system or component limitations
Understand Hydraulic system - reservoirs	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Hydraulic system - reservoirs	Can explain immediate action items or memory items, if appropriate

Understand Hydraulic system - reservoirs	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Hydraulic system - reservoirs	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Hydraulic system - reservoirs	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - antiskid	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - antiskid	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - antiskid	Can explain system or component limitations
Understand Landing Gear - antiskid	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - antiskid	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - antiskid	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - antiskid	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - antiskid	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - brakes	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - brakes	Can describe the operation of the airplane systems and components using correct terminology

Understand Landing Gear - brakes	Can explain system or component limitations
Understand Landing Gear - brakes	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - brakes	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - brakes	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - brakes	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - extension/retraction system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - extension/retraction system	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - extension/retraction system	Can explain system or component limitations
Understand Landing Gear - extension/retraction system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - extension/retraction system	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - extension/retraction system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - extension/retraction system	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - extension/retraction system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to

	document inoperative components of this system and explain related procedures
Understand Landing Gear - indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - indicators	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - indicators	Can explain system or component limitations
Understand Landing Gear - indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - indicators	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - indicators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - nosewheel steering	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - nosewheel steering	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - nosewheel steering	Can explain system or component limitations
Understand Landing Gear - nosewheel steering	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - nosewheel steering	Can explain immediate action items or memory items, if appropriate

Understand Landing Gear - nosewheel steering	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - nosewheel steering	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - shock absorbers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - shock absorbers	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - shock absorbers	Can explain system or component limitations
Understand Landing Gear - shock absorbers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - shock absorbers	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - shock absorbers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - shock absorbers	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - shock absorbers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - tires	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - tires	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - tires	Can explain system or component limitations

Understand Landing Gear - tires	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - tires	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - tires	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - tires	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - tires	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define declared runway distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define landing distance available
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define actual landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can interpret and make proper runway condition reports
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "adjusted landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "unfactored (certified) landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "factored landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the point at which landing configuration should be established in a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe a stabilized approach profile for both VMC and IMC conditions
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of a stabilized descent rate
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of indicated airspeed during a stabilized approach

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that ATP criteria for touchdown point is the aiming point markings - 250/+500 feet, or where there are no runway aiming point markings 750 to 1,500 feet from the approach threshold of the runway.
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the effect of downhill runway slope on required landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the impact of excess airspeed on landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the purpose and variables involved in a landing performance assessment at time of arrival
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the effect of wind on landing performance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can identify critical condition combinations that increase risk of a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain proper landing and braking technique
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the difference between AFM dry, certified/approved data and advisory/supplemental data
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can discuss the chain of events that lead to an overrun in this example, and relate it to their own experiences
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can reference applicable regulations for preflight planning
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can calculate the required effective landing distance for dispatch under part 91 and part 135 operations
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the Can U StoP process
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that factors affecting landing distance are cumulative, and why multiple small errors during landing can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how an unstabilized approach can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how high airport elevation can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excess airspeed can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how airplane landing weight can contribute to an aircraft overrun

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing beyond the intended touchdown point can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how downhill runway slope can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excessive height over the runway threshold can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how delayed use of deceleration/maximum breaking can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing with a tailwind can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain predeparture planning versus runway condition at time of arrival
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Emergency descent.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Rapid decompression.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Overspeed
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Total loss of braking.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: EGPWS alert.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Windshear alert
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: TCAS alert
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can describe the operation of the airplane systems and components using correct terminology
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain system or component limitations

Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain immediate action items or memory items, if appropriate
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can describe the operation of the airplane systems and components using correct terminology
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain system or component limitations
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain immediate action items or memory items, if appropriate
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Pneumatic and environmental system - pressurization	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Pneumatic and environmental system - pressurization	Can describe the operation of the airplane systems and components using correct terminology
Understand Pneumatic and environmental system - pressurization	Can explain system or component limitations
Understand Pneumatic and environmental system - pressurization	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Pneumatic and environmental system - pressurization	Can explain immediate action items or memory items, if appropriate
Understand Pneumatic and environmental system - pressurization	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pneumatic and environmental system - pressurization	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear recognition
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear pilot technique
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff after liftoff
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff while on the runway
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff while on the runway
Understand recognizing and escaping severe weather situations (windshear)	Can define windshear as any rapid change in wind direction or velocity
Understand recognizing and escaping severe weather situations (windshear)	Can define severe windshear as a rapid change in wind direction or velocity causing airspeed changes greater than 15 knots or vertical speed changes greater than 500 feet per minute
Understand recognizing and escaping severe weather situations (windshear)	Can define Increasing Headwind Shear as windshear in which headwind increases, causing an airspeed increase
Understand recognizing and escaping severe weather situations (windshear)	Can define Decreasing Headwind Shear as windshear in which headwind decreases, causing an airspeed loss

Understand recognizing and escaping severe weather situations (windshear)	Can define Increasing Tailwind Shear as windshear in which tailwind increases, causing an airspeed loss
Understand recognizing and escaping severe weather situations (windshear)	Can define Decreasing Tailwind Shear as windshear in which tailwind decreases, causing an airspeed increase
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter on the approach
Understand recognizing and escaping severe weather situations (windshear)	Can discuss takeoff precautions
Understand recognizing and escaping severe weather situations (windshear)	Can discuss approach precautions
Understand recognizing and escaping severe weather situations (windshear)	Can discuss the characteristics of a microburst
Understand recognizing and escaping severe weather situations (windshear)	Can discuss general windshear recovery technique
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear recovery technique after liftoff/on approach
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear recovery technique during takeoff/on runway
Understand recognizing and escaping severe weather situations (windshear)	Can discuss why other techniques of recovery reduce the chances of survival

SIM 4 Tasks and Expectations

Tasks	**Motor Skill Learning Objectives**	**Attitude Learning Objectives**	**Task Expectation Rating**
Understand determining landing performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance	High

		charts, tables, and data	
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Conduct after landing, parking and securing	Can demonstrate runway incursion avoidance procedures.		High
Conduct after landing, parking and securing	Can comply with ATC instructions and perform radio calls as appropriate.		High
Conduct after landing, parking and securing	Can coordinate with crew, if applicable, and execute the appropriate checklist(s) after clearing the runway.		High
Conduct after landing, parking and securing	Can perform parking in the appropriate area, considering		High

	the safety of nearby persons and property.		
Conduct after landing, parking and securing	Can execute a postflight inspection and document discrepancies and servicing requirements, if any.		High
Conduct after landing, parking and securing	Can perform securing the airplane.		High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing propeller, turbofan inlet, and exhaust safety.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing airport specific security procedures.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks,	High

		encompassing disembarking passengers.	
Conduct Automatic Emergency Descent Mode (EDM)procedure	Can execute procedure with smoothness and accuracy		High
Conduct Automatic Emergency Descent Mode (EDM)procedure	Can operate the airplane within its limitations		High
Conduct Automatic Emergency Descent Mode (EDM)procedure	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can apply aeronautical knowledge to execution of the task	High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can apply crew coordination	High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can conduct effective communicatio n with the other crew members	High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can manage crew cooperation	High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can maintain a general survey of the aircraft operation by appropriate supervision	High

Conduct Automatic Emergency Descent Mode (EDM)procedure		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can demonstrate good judgement and airmanship	High
Conduct Before Takeoff Checks		Can manage the risk of errors when assigned an RNAV DP and subsequently receives a change of runway, procedure or transition by verifying the appropriate changes are entered and available for navigation prior to takeoff.	High
Conduct Before Takeoff Checks	Can determine the airplane's takeoff performance for actual conditions and planned departure runway		High

Conduct Before Takeoff Checks	Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		High
Conduct Before Takeoff Checks	Can confirm all systems checked are within an acceptable operating range and are safe for the proposed flight		High
Conduct Before Takeoff Checks	Can explain any system operating characteristic or limitation and any corrective action for a malfunction during the checks		High
Conduct Before Takeoff Checks	Can determine airspeeds/V-speeds and set flight instruments appropriately		High
Conduct Before Takeoff Checks	Can use flight director and autopilot controls for the current flight conditions and takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can perform configuration of navigation equipment for takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can configure communication equipment for takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can obtain and correctly interpret the takeoff and departure clearance		High
Conduct Before Takeoff Checks	Can conduct a briefing that includes procedures for emergency and abnormal situations (e.g., powerplant failure, windshear), which may be encountered during takeoff, and state the planned action if they were to occur		High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing division of attention	High

		while conducting before takeoff checks	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing an unexpected change in the runway to be used for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to verify performance data is correct and airspeeds and flight instruments are set for actual conditions and the departure runway	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to set navigation and communication equipment for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to configure autopilot and	High

		flight director controls for departure	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to account for adverse weather conditions prior to takeoff (e.g., snow, ice, gusting crosswinds, low-visibility)	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing A powerplant failure during takeoff or other malfunction considering operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing	High

		failure to complete checklist(s)	
Conduct Circling Approach	Can comply with the circling approach procedure considering turbulence, windshear, and the maneuvering capability and approach category of the aircraft.		Medium
Conduct Circling Approach	Can confirm the direction of traffic and adhere to all restrictions and instructions issued by ATC.		Medium
Conduct Circling Approach	Can perform establishing the correct approach and landing configuration		Medium
Conduct Circling Approach	Can maintain a stabilized approach and a descent rate that ensures arrival at the MDA, or the preselected circling altitude above the MDA, prior to the missed approach point.		Medium
Conduct Circling Approach	Can maintain airspeed ±5 knots, desired heading/track ±5°, and altitude +100/-0 feet until descending below the MDA or the preselected circling altitude above the MDA.		Medium
Conduct Circling Approach	Can perform visually maneuvering to a base or downwind leg appropriate for the landing runway and environmental conditions.		Medium
Conduct Circling Approach	Can perform a turn in the appropriate direction using the correct procedure and execute configuring the airplane if a missed approach occurs		Medium
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing	Medium

		failure to follow prescribed circling approach procedures.	
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing executing a circling approach at night or with marginal visibility.	Medium
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing losing visual contact with an identifiable part of the airport.	Medium
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	Medium
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing failure to maintain an appropriate altitude or airspeed while circling.	Medium

Conduct Circling Approach		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing executing an improper missed approach after the MAP while circling.	Medium
Conduct Departure Procedures	Can select the appropriate instrument departure procedure.		High
Conduct Departure Procedures	Can select, identify and use the appropriate communication facilities associated with the procedure		High
Conduct Departure Procedures	Can select, identify and use the appropriate navigation facilities associated with the procedure		High
Conduct Departure Procedures	Can perform programming the FMS prior to departure and execute avionics setup of flight director and autopilot controls for the departure		High
Conduct Departure Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		High
Conduct Departure Procedures	Can initiate two-way communications with the proper controlling agency		High
Conduct Departure Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		High

Conduct Departure Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		High
Conduct Departure Procedures	Can comply with all applicable charted procedures		High
Conduct Departure Procedures	Can maintain the appropriate airspeed ±10 knots, headings ±10°, and altitude ±100 feet, and accurately track a course, radial, or bearing		High
Conduct Departure Procedures	Can execute the departure phase to a point where the transition to the en route environment is complete		High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures and required climb gradients	High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing limitations of air traffic avoidance equipment and use of see and avoid techniques	High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing improper	High

		automation management	
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure	Can execute procedure with smoothness and accuracy		High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure	Can operate the airplane within its limitations		High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can apply aeronautical knowledge to execution of the task	High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can apply crew coordination	High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can conduct effective communication with the other crew members	High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can manage crew cooperation	High

Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can demonstrate good judgement and airmanship	High
Conduct EFVS Operations		When using the EFVS, can demonstrate familiarization with the interpretation of the display to ensure proper identification of the runway and positioning of the aircraft relative to continuation of the approach to	High

		landing. Pilots should understand the limitations of these systems, operational credits available, and authorization required for use. For more information on EFVS, refer to AC 90-106.	
Conduct EGPWS Escape Maneuver	Can execute procedure with smoothness and accuracy		High
Conduct EGPWS Escape Maneuver	Can operate the airplane within its limitations		High
Conduct EGPWS Escape Maneuver	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct EGPWS Escape Maneuver		Can apply aeronautical knowledge to execution of the task	High
Conduct EGPWS Escape Maneuver		Can apply crew coordination	High
Conduct EGPWS Escape Maneuver		Can conduct effective communicatio n with the other crew members	High
Conduct EGPWS Escape Maneuver		Can manage crew cooperation	High
Conduct EGPWS Escape Maneuver		Can maintain a general survey of the aircraft	High

		operation by appropriate supervision	
Conduct EGPWS Escape Maneuver		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct EGPWS Escape Maneuver		Can demonstrate good judgement and airmanship	High
Conduct Emergency Procedure - Emergency Decent	Can coordinate with crew and execute the appropriate checklist(s) in a timely manner		High
Conduct Emergency Procedure - Decompression	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Decompression		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Decompression		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High

Conduct Emergency Procedure - Decompression		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	High
Conduct Emergency Procedure - Decompression		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Emergency Decent	Can coordinate with crew and execute the appropriate checklist(s) in a timely manner		High
Conduct Emergency Procedure - Emergency Decent	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Emergency Decent		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Emergency Decent		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High

Conduct Emergency Procedure - Emergency Decent		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	High
Conduct Emergency Procedure - Emergency Decent		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can execute continued takeoff following failures including engine failure after V1, and any critical failures for the aircraft type that could lead to lateral asymmetry during the takeoff;		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can execute continued takeoff if the powerplant failure occurs at a point where the airplane can continue to a specified airspeed and altitude at the end of the runway commensurate with the airplane's performance capabilities and operating limitations		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can maintain the desired airspeed, ±5 knots after establishing a climb, and use flight controls in the proper combination as recommended by the manufacturer, to maintain best performance and trim		High

Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can maintain the appropriate heading, ±5°, when powerplant failure occurs		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can coordinate with crew and execute the appropriate checklist(s) following the powerplant failure.		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure during takeoff considering operational factors such as takeoff warning inhibit systems, runway/takeoff path length, surface conditions, environment, obstructions, and LAHSO operations.	High

Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to brief the plan for a powerplant failure during takeoff, in a crew environment.	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to correctly identify the inoperative engine (AMEL, AMES).	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing inability to climb or maintain altitude with an inoperative powerplant (AMEL, AMES).	High

Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct OEI Climb to En Route Altitude	Can conduct an OEI climb enroute at either V_{se} or greater, depending on conditions.		High
Conduct Go-Around/Rejected Landing	Can describe, perform airborne system use for go-around, including consideration of height loss during transition to a go-around, performance assurance for obstacle clearance, management of any necessary mode changes, and assurance of appropriate vertical and lateral flightpath tracking.		High
Conduct Go-Around/Rejected Landing	Can initiate a timely decision to go-around/reject the landing.		High

Conduct Go-Around/Rejected Landing	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		High
Conduct Go-Around/Rejected Landing	Can perform establishing a positive rate of climb and the appropriate airspeed/V-speed, ±5 knots.		High
Conduct Go-Around/Rejected Landing	Can execute configuration and trimming of the airplane, when appropriate.		High
Conduct Go-Around/Rejected Landing	Can perform radio calls as appropriate		High
Conduct Go-Around/Rejected Landing	Can maintain the ground track, heading, or course appropriate for the conditions, or as specified by ATC.		High
Conduct Go-Around/Rejected Landing	Can execute the appropriate procedures and checklist(s) in a timely manner.		High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing delayed recognition of the need for a go-around/rejected landing.	High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing delayed performance of a go-around at low altitude.	High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing	High

		improper application of power.	
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing improper airplane configuration.	High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires vessels, vessels, persons, and wildlife.	High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High

Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing managing a go-around/rejected landing after accepting a LAHSO clearance.	High
Conduct Landing From a Circling Approach	Can maintain the airport environment in sight and remain within the circling approach radius applicable to the approach category to a position from which a stabilized descent to landing can be made.		Medium
Conduct Landing From a Circling Approach	Can comply with all ATC advisories, such as NOTAMs, windshear, wake turbulence, runway surface, braking conditions, and other operational considerations.		Medium
Conduct Landing From a Circling Approach	Can perform alignment of the airplane for a normal landing on the selected runway without excessive maneuvering and without exceeding the normal operating limits of the airplane. The angle of bank should not exceed 30°.		Medium
Conduct Landing From a Circling Approach	Can perform smooth, timely, and correct control application throughout the circling maneuver and maintain appropriate airspeed, ±5 knots. If applicable, maintain altitude +100/−0 feet, and desired heading/track, ±5°.		Medium
Conduct Landing From a Circling Approach	Can confirm the airplane is configured for landing.		Medium

Conduct Landing From a Circling Approach	Can scan the landing runway and adjoining area for traffic and obstructions		Medium
Conduct Landing From a Circling Approach	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		Medium
Conduct Landing From a Circling Approach	Can maintain positive aircraft control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		Medium
Conduct Landing From a Circling Approach	Can demonstrate SRM or CRM, as appropriate.		Medium
Conduct Landing From a Circling Approach	Can apply runway incursion avoidance procedures.		Medium
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing landing from a circling approach	Medium
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing selection of an approach procedure and runway based on pilot capability, aircraft limitations, available distance, surface	Medium

		conditions, and wind.	
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing wake turbulence.	Medium
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for missed approach	Medium
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for land and hold short operations (LAHSO)	Medium
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Medium
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for	Medium

		low altitude maneuvering including stall, spin, or CFIT.	
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for distractions, loss of situational awareness, or improper task management.	Medium
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for attempting to land from an unstable approach.	Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can perform non-normal configuration approaches and landings in instrument conditions. For these approaches, the simulated weather minima may be above, or well above, the lowest minima authorized. Minima should be at levels that might typically be experienced in line operations for a landing with the non-normal condition used. During these approaches, representative autoflight, instrument, and aircraft system configurations or combinations of configurations should be demonstrated (e.g., F/D, autopilot, HUD, vision systems, autothrottles, raw		Medium

	data, and inoperative electrical or hydraulic components).		
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can recognize the malfunction.		Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can coordinate with crew, if applicable, and complete applicable checklist(s) for the malfunction, approach, and landing.		Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can coordinate with ATC as needed and select an airport/runway with sufficient length for landing.		Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can calculate the correct airspeeds/V-speeds for approach and landing.		Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can perform establishing the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required to maintain a stabilized approach.		Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can select a suitable touchdown point considering wind, landing surface, and obstructions.		Medium
Conduct Landing from a No Flap or	Can perform smooth, timely, and correct control application		Medium

Nonstandard Flap Approach	before, during, and after touchdown.		
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can maintain positive aircraft control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing hazards associated with a no flap or nonstandard flap approach and landing to include an asymmetrical flap situation.	Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing selection of a runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	Medium

Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing wake turbulence.	Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing go-around/rejected landing.	Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	Medium
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or	Medium

		improper task management.	
Conduct Missed Approach	Can execute a missed approach from the MDA, DA/DH, or AH.		High
Conduct Missed Approach	Can execute a missed approach from a low altitude that could result in a touchdown during go-around (balked or rejected landing).		High
Conduct Missed Approach	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		High
Conduct Missed Approach	Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and initiate a positive rate of climb at the appropriate airspeed/V- speed, ±5 knots.		High
Conduct Missed Approach	Can coordinate with crew and execute the appropriate procedures and checklist(s) in a timely manner.		High
Conduct Missed Approach	Can comply with the published or alternate missed approach procedure.		High
Conduct Missed Approach	Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		High
Conduct Missed Approach	Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure.		High
Conduct Missed Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		High

Conduct Missed Approach	Can demonstrate effective CRM		High
Conduct Missed Approach	Can execute re-engagement of the autopilot at appropriate times during the missed approach procedure.		High
Conduct Missed Approach	Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix, or other clearance limit, as appropriate, or as directed by the evaluator.		High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to follow prescribed procedures.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing holding, diverting, or electing to fly the approach again.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	High

Conduct Missed Approach		Can identify, assess, and manage risks, encompassing factors that might lead to executing a missed approach procedure before the MAP or to a go-around below DA/MDA.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	High
Conduct Nonprecision Approach		Can appreciate that there are environments in which using CDFA technique is not advisable or practical, for example airports that do not offer straight in non-precision approaches.	High
Conduct Nonprecision Approach	Can perform the nonprecision instrument approaches selected by the instructor/evaluator		High

Conduct Nonprecision Approach	Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		High
Conduct Nonprecision Approach	Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		High
Conduct Nonprecision Approach	Can Comply with all clearances issued by ATC.		High
Conduct Nonprecision Approach	Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		High
Conduct Nonprecision Approach	Can coordinate with ATC if unable to comply with a clearance.		High
Conduct Nonprecision Approach	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		High
Conduct Nonprecision Approach	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High
Conduct Nonprecision Approach	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		High
Conduct Nonprecision Approach	Can maintain a stabilized descent to the appropriate altitude.		High

Conduct Nonprecision Approach	Can maintain no more than ¼ scale CDI deflection, airspeed ±5 knots of selected value, and altitude above MDA +50/-0 feet (to the VDP or MAP) during the final approach segment		High
Conduct Nonprecision Approach	Can execute the missed approach procedure if the required visual references are not distinctly visible and identifiable at the appropriate point or altitude for the approach profile, or execute a normal landing from a straight-in or circling approach.		High
Conduct Nonprecision Approach	Can use a Multi-Function Display (MFD) and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to follow the correct approach procedure (e.g., descending too early, etc.).	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Selecting an incorrect navigation frequency.	High

Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to manage automated navigation and auto flight systems.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to ensure proper airplane configuration during an approach and missed approach.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing An unstable approach, including excessive descent rates.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Deteriorating weather conditions on approach.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Operating below the	High

		minimum descent altitude (MDA) or continuing a descent below decision altitude (DA) without proper visual references.	
Conduct Visual Approach (VFR Procedures)	Can conduct a visual approach.		High
Conduct Recovery From Unusual Flight Attitudes	Can use instrument cross-check and interpretation to identify a nose low unusual attitude		High
Conduct Recovery From Unusual Flight Attitudes	Can use instrument cross-check and interpretation to identify a nose high unusual attitude		High
Conduct Recovery From Unusual Flight Attitudes	Can apply the appropriate pitch, bank, and power corrections, in the correct sequence, to return to a stabilized level flight attitude		High
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing situations that could lead to loss of control or unusual flight attitudes (e.g., stress, task saturation, and distractions).	High
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing exceeding the	High

		operating envelope during the recovery	
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing failure to recognize an unusual flight attitude and follow the proper recover procedure	High
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing exceeding the operating envelope during the recovery	High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify currency and integrity of aircraft navigation data		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can obtain a receiver autonomous integrity monitoring (RAIM) prediction for the planned RNP operation		High

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify successful completion of RNP system self-tests;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform initialization navigation system position		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform retrieval of an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can execute an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High
Conduct RNP operations in the United States, oceanic and remote continental airspace,	Can perform adherence to speed and/or altitude constraints associated with RNP operations		High

and in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can select the appropriate STAR or SID for the active runway in use and be familiar with procedures to deal with a runway change		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify waypoints and flight plan programming;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform a manual or automatic runway update (with takeoff point shift for Inertial Reference Units (IRU) only);		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying direct to a waypoint		High

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying a course/track to a waypoint		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform interception of a course/track		High
Conduct Steep Turns	Can maintain the manufacturer’s recommended airspeed; or if one is not available, an airspeed not to exceed VA		High
Conduct Steep Turns	Can maintain at least a 45° bank solely by reference to instruments and make a coordinated steep turn of at least 180°		High
Conduct Steep Turns	Can perform reversal of direction and establish at least a 45° bank solely by reference to instruments and make a coordinated steep turn of at least 180°		High
Conduct Steep Turns	Can perform smooth pitch, bank, and power adjustments as needed		High
Conduct Steep Turns	Can maintain the entry altitude ±100 feet, airspeed ±10 knots, bank ±5°, and roll out on the specified heading, ±10°		High

Conduct Steep Turns	Can maintain avoidance of any indications of impending stall, abnormal flight attitude, or exceedance of any structural or operating limitation		High
Conduct Steep Turns		Can identify, assess, and manage risks, encompassing spatial disorientation when conducting a steep turn while flying by reference to instruments	High
Conduct Steep Turns		Can identify, assess, and manage risks, encompassing failure to maintain coordinated flight	High
Conduct Steep Turns		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management	High
Conduct Taxi	Low visibility taxi and ground operations should be trained to the extent practical and beneficial. Such training should address operations at typical airports or alternately, at airports frequently experiencing low-visibility conditions, complex airports on the operator's route system,		High

	airports with particular low visibility ground movement difficulties, or rarely used but significant contingency airports, as determined appropriate by the operator.		
Conduct Taxi	perform either PF or PM duties, unless otherwise limited by the operator's policies or aircraft characteristics (e.g., single HUD).		High
Conduct Taxi	Can record taxi instructions, respond to taxi clearances, and review taxi routes on the airport diagram.		High
Conduct Taxi	Can use an airport diagram or taxi chart during taxi		High
Conduct Taxi	Can comply with ATC clearances and instructions and observe all runway hold lines, ILS critical areas, beacons, and other airport/taxiway markings and lighting		High
Conduct Taxi	Can coordinate with crew, if applicable, and complete the appropriate checklist(s) prior to and during taxi		High
Conduct Taxi	Can maintain situational awareness during taxi		High
Conduct Taxi	Can maintain correct and positive airplane control, proper speed, appropriate use of wheel brakes and reverse thrust		High
Conduct Taxi	Can maintain separation between other aircraft, vehicles, and persons to avoid an incursion/incident/accident		High
Conduct Taxi	Can use aircraft exterior lighting for day and night operations		High

Conduct Taxi		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing a taxi route or departure runway change	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing low visibility taxi operations	High
Conduct Taxi		Can conduct a briefing on the timing and execution of aircraft checklists and company communicatio	High

		ns at the appropriate times and locations, ensuring the pilot who is not taxiing the aircraft can be available to participate in verbal coordination with the pilot who is taxiing the aircraft	
Conduct Taxi		Can consider the anticipated duration of the taxi operation, the locations of hot spots/complex intersections and runway crossings, and the visibility along the taxi route when briefing tasks or accomplishing checklists	High
Conduct Taxi		Can manage pilot workload and heads-down time during taxi by conducting predeparture checklists, including setting the takeoff flap setting, when the aircraft is	High

		stopped or while taxiing straight ahead on a taxiway without complex intersections and hot spots	
Conduct Taxi		Can maintain a sterile cockpit during taxi operations	High
Conduct Taxi	Can use airport diagram to follow progress of the taxi operation		High
Conduct Taxi		Can manage the risk of expectation bias, and follow the clearance or instructions that are actually received, and not the ones they expected to receive.	High
Conduct Taxi		Can be alert to ATC instructions to hold short of an ILS critical area holding line.	High
Conduct Taxi		Can monitor the aircraft's progress on the airport diagram to ensure that the pilot taxiing the aircraft is following the instructions	High

		received from the ATC while maintaining outside vigilance	
Conduct Taxi		Can determine whether or not to accept last-minute turnoff instructions from ATC, refusing such clearance unless the crew clearly understands the instructions and are certain that they can safely comply.	High
Conduct Taxi		Can respond to all hold short instructions, and verifies with other crew members or ATC to ensure agreement and understanding	High
Conduct Taxi	Can execute bringing the aircraft to a complete stop, or be in a phase of taxiing that has no risk of a runway incursion before continuing with operational duties and checklists		High
Conduct Taxi		Can comply with hold short or crossing clearance when	High

		approaching an entrance to a runway.	
Conduct Taxi		Can explain or demonstrate proper actions if the crew becomes disoriented: never stop on a runway, and initiate communications with ATC to regain orientation.	High
Conduct Taxi		Can demonstrate vigilance when instructed to taxi and “Line Up and Wait”. Turns Traffic Alert and Collision Avoidance System (TCAS)/traffic advisory systems (TAS) on in order obtain awareness of any aircraft that may be landing on your runway.	High
Conduct Taxi		Can resolve all misunderstandings or disagreements regarding taxi clearance to	High

		the satisfaction of all flightcrew members before taxiing the aircraft.	
Conduct Taxi	Can apply use of the airport diagram after receiving a clearance, and confirms and verbalizes the assigned runway and taxi route, including any instructions to hold short of, or cross, a runway. If there is any doubt, speaks up and resolve the uncertainty before taxi		High
Conduct Taxi		Can coordinate with other flightcrew member(s) if stopping and resuming the monitoring of the ATC frequency, for example when it becomes necessary for a flightcrew member to stop monitoring any ATC frequency to prepare the aircraft for takeoff or landing.	High
Conduct Taxi		Can assess any upcoming hold short instructions or clearances that could be misinterpreted	High

		prior to stopping and after resuming monitoring of the taxi. An example may include: “I’m heads-down, right turn ahead at Alpha,” or “I’m back, any changes?”	
Conduct Taxi		Can appreciate that time away from monitoring ATC should be avoided with complex taxi routing or crossing of runways. Any instructions or information received or transmitted during that flightcrew member’s absence from the ATC frequency should be reviewed and confirmed upon his or her return.	High
Conduct Taxi		Can coordinate verbally at complex intersections to be sure that:	High

		the intersection is correctly identified and confirmed using the airport diagram and the heading indicator	
Conduct Taxi		Can state “approaching (specific runway number) hold short line. Before crossing any hold short line, the flightcrew should visually scan to the left and to the right, including the full length of the runway and its approach paths, and coordinate verbally (e.g., “clear right/left” or that the scan area is not clear).	High
Conduct Taxi		Can coordinate verbally and agree on the runway assigned by ATC, the	High

		upcoming assigned exit, and any restrictions, such as hold short points of an intersecting runway and the aircraft's parking area after landing	
Conduct Taxi	Can execute turning on the rotating beacon whenever an engine is running		High
Conduct Taxi	Can execute turning on navigation, position, anti-collision, and logo lights, if available, to signal intent to other pilots prior to commencing taxi		High
Conduct Taxi	Can execute turning on the taxi light when the aircraft is moving or intending to move on the ground, and turning it off when stopped or yielding or as a consideration to other pilots or ground personnel		High
Conduct Taxi	Can execute illuminating all lights when crossing a runway when appropriate		High
Conduct Taxi		Can consider any adverse effects to safety that illuminating the forward-facing lights will have on the vision of other pilots or ground personnel during runway crossings, and adjust	High

		operation accordingly	
Conduct TCAS Resolution Advisory (RA)	Can respond to the RA with positive control inputs, when required, while the PM provides updates on the traffic location and cross-checks between the traffic display and monitors the response to the RA		High
Conduct TCAS Resolution Advisory (RA)	Can interpret the displayed information, and recognize the intruder causing the issuance of the RA (red square on display).		High
Conduct TCAS Resolution Advisory (RA)	Can respond to the corrective RA in the proper direction within 5 seconds of the RA being displayed		High
Conduct TCAS Resolution Advisory (RA)	Can respond to a change in the initially displayed RA withing 2.5 seconds		High
Conduct TCAS Resolution Advisory (RA)	Can recognize and respond to altitude crossing RAs		High
Conduct TCAS Resolution Advisory (RA)	Can respond to preventive RAs by ensuring the VS needle remains outside the red area on the RA display.		High
Conduct TCAS Resolution Advisory (RA)	Can maintain vertical speed during "maintain rate" Ras		High
Conduct TCAS Resolution Advisory (RA)	Can recognize that a maintain rate RA may result in crossing through the intruder’s altitude.		High

Conduct TCAS Resolution Advisory (RA)		Can appreciate that if a decision is made to not follow an RA, no changes in the existing VS are made in a direction opposite to the sense of the displayed RA. Pilots should be aware that if the intruder is also TCAS equipped, the decision to not follow an RA may result in a decrease in separation at CPA because of the intruder's RA response	High
Conduct TCAS Resolution Advisory (RA)	Can execute a return towards the original clearance when the RA weakens, and when clear of conflict is annunciated, pilot executes a complete the return to the original clearance		High
Conduct TCAS Resolution Advisory (RA)		Can inform the controller of the RA as soon as time and workload permit, using the standard phraseology	High
Conduct TCAS Resolution Advisory (RA)	Can comply with an ATC clearance while responding to an RA when possible. (For example, if the aircraft can level at the assigned altitude		High

	while responding to a reduce climb or reduce descent RA, it should be done)		
Conduct TCAS Resolution Advisory (RA)		Can appreciate that If pilots simultaneously receive instructions to maneuver from ATC and an RA that are in conflict, the pilot should follow the RA.	High
Conduct TCAS Resolution Advisory (RA)		Can appreciate that TCAS only considers intruders that it believes to be a threat when selecting an RA. As such, it is possible for TCAS to issue an RA against one intruder that results in a maneuver towards another intruder that is not classified as a threat. If the second intruder becomes a threat, the RA will be	High

		modified to provide separation from that intruder.	
Conduct TCAS Resolution Advisory (RA)		Can appreciate the consequences of both responding to, and not responding to, an RA	High
Conduct TCAS Traffic Advisory (TA)		Can confirm that the aircraft they have visually acquired is that which has caused the TA to be issued	High
Conduct TCAS Traffic Advisory (TA)	Can use all information shown on the display, and interpret bearing and range of the intruder (amber circle), whether it is above or below (data tag), and its VS direction (trend arrow).		High
Conduct TCAS Traffic Advisory (TA)	Can use other available information is used to assist in visual acquisition. This includes ATC party-line information, traffic flow in use, etc.		High
Conduct TCAS Traffic Advisory (TA)		Can appreciate that the PF should not maneuver the aircraft based solely on the information	High

		shown on the TCAS display. No attempt should be made to adjust the current flightpath in anticipation of what an RA would advise.	
Conduct TCAS Traffic Advisory (TA)		Can appreciate the limitations of making maneuvers based solely on visual acquisition, especially at high altitude or without a definite horizon	High
Conduct TCAS Traffic Advisory (TA)		Can take account of traffic advisory while preparing for a potential resolution advisory (pilot flying)	High
Conduct TCAS Traffic Advisory (TA)		Can monitor traffic location shown on the TCAS display, using this information to help visually acquire the intruder.	High
Conduct use of FMS	Can perform use of the automatic throttle, flight management computer, or		High

	other speed management system, if applicable.		
Conduct use of FMS		Can manage the risk of errors when receiving a change to assigned routing by ensuring the waypoints sequence depicted by their navigation system matches the route depicted on the appropriate chart(s) and their assigned route	High
Conduct use of FMS	Can verify currency of aircraft navigation data.		High
Conduct use of FMS	Can perform flying a course/track to a waypoint.		High
Conduct use of FMS	Can perform interception of a course/track		High
Conduct use of FMS	Can comply with a vectored off and execute rejoining a procedure.		High
Conduct use of FMS	Can determine cross-track error/deviation		High
Conduct use of FMS	Can execute insertion and deletion of a route discontinuity		High
Conduct use of FMS	Can verify successful completion of RNAV system self-tests		High
Conduct use of FMS	Can execute initialization of RNAV system position		High

Conduct use of FMS	Can execute retrieval and flying of a DP or STAR with appropriate transition		High
Conduct use of FMS	Can comply with speed and/or altitude constraints associated with a DP or STAR.		High
Conduct use of FMS	Can verify waypoints and flight plan programming		High
Conduct use of FMS	Can perform flying direct to a waypoint		High
Conduct use of FMS	Can demonstrate general awareness of all three styles of flight director		High
Conduct use of FMS	Can identify symbology available in synthetic vision system		High
Conduct use of FMS	Can differentiate between conformal and non-conformal scaling in the HUD and synthetic vision		High
Conduct use of HUD	Conduct takeoff and departure using HUD to ATP ACS standards		High
Conduct use of HUD	Conduct approach and landing using HUD to ATP ACS standards		High
Conduct use of HUD	Conduct takeoff using FPA to meet a required climb gradient to ATP ACS standards		High
Conduct use of HUD	Can use caged, uncaged and clear modes in crosswind conditions		High
Conduct use of HUD	Can use the pitch limit indicator (PLI) during windshear escape.		High
Conduct use of HUD	Can use the flare symbol as a cue in the Honeywell HUD Model 2020 and as guidance in the HUD II.		High
Conduct use of HUD	Can perform recovery from unusual attitudes using HUD		High
Conduct use of HUD	Can perform TCAS RA using HUD		High

Conduct use of HUD	Can perform takeoff using the FPA to meet a required climb gradient.		High
Conduct use of lateral control switch (GIV-X)	Can use lateral control switch and explain functionality		High
Conduct use of PlaneView System, if applicable	Can perform use of the PlaneView system installed in the full flight training equipment		High
Conduct use of TCAS	Can perform the procedures specified in AC120-55C		High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)	Can execute procedure with smoothness and accuracy		High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)	Can operate the airplane within its limitations		High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can apply aeronautical knowledge to execution of the task	High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of		Can apply crew coordination	High

before landing checklist)			
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can conduct effective communicatio n with the other crew members	High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can manage crew cooperation	High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can demonstrate good judgement and airmanship	High

Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind	Can execute procedure with smoothness and accuracy		High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind	Can operate the airplane within its limitations		High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can apply aeronautical knowledge to execution of the task	High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can apply crew coordination	High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can conduct effective communicatio n with the other crew members	High
Conduct Nose Wheel Steering (NWS) Failure on		Can manage crew cooperation	High

landing upon touchdown with minimum 15 kt crosswind			
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can demonstrate good judgement and airmanship	High
Understand Avionics and communications - Radar		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - Radar		Can identify, assess, and manage risks encompassing failure to	High

		follow appropriate checklists or procedures	
Understand Avionics and communications - Radar		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - Radar		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - terrain awareness/warning/ alert systems		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - terrain awareness/warning/ alert systems		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - terrain awareness/warning/ alert systems		Can identify, assess, and manage risks encompassing improper management	High

		of a system failure	
Understand Avionics and communications - terrain awareness/warning/ alert systems		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - transponder		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - transponder		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - transponder		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - transponder		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Crew and Passenger Equipment - oxygen system		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Crew and Passenger Equipment - oxygen system		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Crew and Passenger Equipment - oxygen system		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Crew and Passenger Equipment - oxygen system		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Crew and Passenger Equipment - passenger oxygen system		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Crew and Passenger Equipment - passenger oxygen system		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Crew and Passenger Equipment - passenger oxygen system		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Crew and Passenger Equipment - passenger oxygen system		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance	High

		and actual performance	
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing possible	High

		differences between calculated performance and actual performance	
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can appreciate that take off distance numbers provided by the AFM are the most restrictive result of numerous part 25 requirements	High
Understand determining climb performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane	High

		operating envelope.	
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and runway excursions	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High

Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining descent performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane	High

		operating envelope.	
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining fuel requirements per AFM		Can explain the adverse effects of exceeding an	High

		airplane limitation or the airplane operating envelope.	
Understand determining fuel requirements per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High

Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining weight and balance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining weight and balance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand Hydraulic system - allowable types of fluid		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Hydraulic system - allowable types of fluid		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Hydraulic system - allowable types of fluid		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Hydraulic system - allowable types of fluid		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Hydraulic system - capacity		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Hydraulic system - capacity		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Hydraulic system - capacity		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Hydraulic system - capacity		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Hydraulic system - pressure		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Hydraulic system - pressure		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Hydraulic system - pressure		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Hydraulic system - pressure		Can identify, assess, and manage risks	High

		encompassing failure to monitor and manage automated systems.	
Understand Hydraulic system - pumps		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Hydraulic system - pumps		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Hydraulic system - pumps		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Hydraulic system - pumps		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Hydraulic system - regulators/accumulators		Can identify, assess, and manage risks encompassing failure to	High

		detect system malfunctions or failures.	
Understand Hydraulic system - regulators/accumulators		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Hydraulic system - regulators/accumulators		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Hydraulic system - regulators/accumulators		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Hydraulic system - reservoirs		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Hydraulic system - reservoirs		Can identify, assess, and manage risks encompassing failure to follow appropriate	High

		checklists or procedures	
Understand Hydraulic system - reservoirs		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Hydraulic system - reservoirs		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Landing Gear - antiskid		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - antiskid		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Landing Gear - antiskid		Can identify, assess, and manage risks encompassing improper management of a system failure	High

Understand Landing Gear - antiskid		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Landing Gear - brakes		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - brakes		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Landing Gear - brakes		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - brakes		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Understand Landing Gear - extension/retraction system		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - extension/retraction system		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Landing Gear - extension/retraction system		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - extension/retraction system		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Landing Gear - indicators		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - indicators		Can identify, assess, and manage risks	High

		encompassing failure to follow appropriate checklists or procedures	
Understand Landing Gear - indicators		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - indicators		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Landing Gear - nosewheel steering		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - nosewheel steering		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Landing Gear - nosewheel steering		Can identify, assess, and manage risks encompassing improper	High

		management of a system failure	
Understand Landing Gear - nosewheel steering		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Landing Gear - shock absorbers		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - shock absorbers		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Landing Gear - shock absorbers		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - shock absorbers		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Landing Gear - tires		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - tires		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Landing Gear - tires		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - tires		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand OEM checklist philosophy		Can appreciate that while there are no defined memory items in the AFM, pilots should still be	High

		familiar enough with the aircraft to be able to perform initial and critical items without first referencing associated documentation. In addition, pilots are expected to don oxygen masks promptly when appropriate (e.g., when smoke is detected).	
Understand OEM checklist philosophy		Can appreciate that abnormal and emergency procedures are presented in quick reference handbooks (QRH) of an identical format for all three aircraft. Although some individual steps may differ or use different acronyms, these steps are carried out under the	High

		guidance of the handbook in a logical decision-making manner	
Understand Pneumatic and environmental system - controls, indicators, and regulating devices		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Pneumatic and environmental system - controls, indicators, and regulating devices		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Pneumatic and environmental system - controls, indicators, and regulating devices		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Pneumatic and environmental system - controls, indicators, and regulating devices		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Pneumatic and environmental		Can identify, assess, and manage risks encompassing	High

system - heating, cooling, ventilation		failure to detect system malfunctions or failures.	
Understand Pneumatic and environmental system - heating, cooling, ventilation		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Pneumatic and environmental system - heating, cooling, ventilation		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Pneumatic and environmental system - heating, cooling, ventilation		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Pneumatic and environmental system - pressurization		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Pneumatic and environmental system - pressurization		Can identify, assess, and manage risks encompassing failure to follow appropriate	High

		checklists or procedures	
Understand Pneumatic and environmental system - pressurization		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Pneumatic and environmental system - pressurization		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Conduct EFVS Operations	Per § 61.66(b)(2)(i) can integrate the following: it is necessary that the flight training curriculum includes preflight and in-flight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes, and associated systems, and adjustments for brightness and contrast under day and night conditions. It may be beneficial to perform these tasks in the curriculum using either the manufacturer's recommended procedures or procedures applicable to the operator.		High

Conduct EFVS Operations	Per § 61.66(b)(2)(ii) can integrate the following: it is necessary that the flight training curriculum includes proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings. It may be beneficial for the curriculum to allow pilots to become familiar with the use of installed equipment such as an EFVS in all phases of flight.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can use a sample of approach types for the EFVS operation being trained (e.g., precision and nonprecision, if applicable).		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) use a sample of crosswind conditions and offset angles that emphasize the challenges of operating with the limited FOV with an EFVS.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can conduct EFVS operations in visibilities less than IAP minimum visibilities. This may not be practical if training is conducted in an aircraft. If the training is accomplished in a full flight simulator (FFS), conduct the training with the enhanced visibilities representative of the EFVS sensor performance.		Medium

Conduct EFVS Operations	Per § 61.66(b)(2)(iv) can integrate the following: it is necessary that the flight training curriculum includes determining enhanced flight visibility. The curriculum can help pilots learn how to determine enhanced flight visibility using techniques and methods similar to the techniques and methods used for determining flight visibility when conducting an approach without an EFVS.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(v) can integrate the following: it is necessary that the flight training curriculum includes identifying required visual references appropriate to EFVS operations. The curriculum can help pilots learn how to identify required visual references using an EFVS with techniques and methods similar to the techniques and methods used for identifying the required visual references when conducting an approach without the use of an EFVS. The PM may use the PM display, if available, to assist the PF in this task.		High

Conduct EFVS Operations	Per § 61.66(b)(2)(vi) can integrate the following: it is necessary that the flight training curriculum includes transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment. The curriculum can help pilots learn how to acquire visual references with natural vison at 100 feet during an EFVS-100 operation. There are many acceptable techniques for identifying the visual references with natural vision while the pilot continues using the EFVS to provide the enhanced flight visibility required for the operation.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) use procedures applicable to the PF and PM, crew briefings, procedures, callouts, and coordination items for EFVS operations, including annunciation of published minimums during operation below the DA/DH or MDA.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct procedures at 100 feet during an EFVS-100 operation.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct EFVS failure procedures (procedures for an EFVS failure or a system degradation during an EFVS operation).		High
Conduct EFVS Operations	Can conduct preflight and inflight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes and		High

	associated systems, and adjustments for brightness and contrast under day and night conditions.		
Conduct EFVS Operations	Can use proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings.		High
Conduct EFVS Operations	Can use proper piloting techniques for the use of EFVS during instrument app roaches, to include operations below DA/DH or MDA as applicable to the EFVS operations to be conducted, under both day and night conditions.		High
Conduct EFVS Operations	Can determine enhanced flight visibility.		High
Conduct EFVS Operations	Can identify required visual references appropriate to EFVS operations.		High
Conduct EFVS Operations	Can adjust when transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment.		High
Conduct EFVS Operations	Can conduct normal, abnormal, emergency, and crew coordination procedures when using an EFVS.		High
Conduct Stall Prevention and Recovery	Can conduct an impending stall recovery with only idle thrust available. See Appendix 2, Demonstration 1 for details.		High
Conduct Stall Prevention and Recovery	Can conduct a clean configuration stall prevention (high altitude) scenario. See Appendix 3, Scenario 1 for details.		High

SIM 5 Learning Objectives

SIM 5 Briefing Items

Tasks	**Knowledge & Cognitive Learning Objectives**
Understand determining landing performance per AFM	Can explain the parameters and importance of a stabilized approach
Understand determining landing performance per AFM	Can explain the importance of accurate and timely assessments of landing distance
Understand determining landing performance per AFM	Can explain the origin and use of runway Declared Distances
Understand determining landing performance per AFM	Can identify and manage risks associated with runway overruns during the landing
Understand determining landing performance per AFM	Can explain the risks associated with tailwind landings and landings on contaminated runways
Understand determining landing performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining landing performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining landing performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining landing performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Conduct Before Takeoff Checks	Can explain the purpose of checking each item during before takeoff checks
Conduct Before Takeoff Checks	Can describe how to detect malfunctions
Conduct Before Takeoff Checks	Can ensure the aircraft is in safe operating condition
Conduct Before Takeoff Checks	Can explain deicing and anti-icing procedures
Conduct Before Takeoff Checks	Can describe how to conduct a proper pre-takeoff contamination check

Conduct Before Takeoff Checks	Can describe how adverse weather conditions effect takeoff performance (e.g., snow, ice, gusting crosswinds, low-visibility)
Conduct Before Takeoff Checks	Can give a before takeoff briefing
Conduct Clean Configuration Stall prevention	Can explain aerodynamics associated with stalls in a clean configuration, to include the relationship between angle of attack, airspeed, load factor, power setting, aircraft weight and balance
Conduct Clean Configuration Stall prevention	Can explain stall characteristics of this aircraft type and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel)
Conduct Clean Configuration Stall prevention	Can explain factors and situations that Can lead to a stall during cruise flight and actions that Can be taken to prevent it
Conduct Clean Configuration Stall prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Conduct Clean Configuration Stall prevention	Can explain fundamentals of stall recovery
Conduct Clean Configuration Stall prevention	Can explain the effects of altitude on performance (e.g., thrust available) and flight control effectiveness during a recovery
Conduct Departure Procedures	Can explain takeoff minimums
Conduct Departure Procedures	Can explain obstacle Departure Procedure (ODP), including Visual Climb over the Airport (VCOA) and Diverse Vector Area (Radar Vectors)
Conduct Departure Procedures	Can explain Standard Instrument Departures (SID), including RNAV departure
Conduct Departure Procedures	Can explain required climb gradients
Conduct Departure Procedures	Can explain U.S. Terminal Procedures Publications and En Route Charts
Conduct Departure Procedures	Can explain proper use of a Flight Management System (FMS) to follow a DP

Conduct Departure Procedures	Can explain pilot/controller responsibilities, communication procedures, and ATC services available to pilots
Conduct Departure Procedures	Can explain two-way radio communication failure procedures after takeoff
Conduct Departure Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)
Conduct Departure Procedures	Can explain communication failure procedures
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain flight characteristics and controllability associated with maneuvering to a landing with inoperative powerplant(s).
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain go-around/rejected landing procedures with a powerplant failure.
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain how to determine a suitable airport.
Conduct Emergency Procedure - Emergency evacuation	Can explain when an emergency evacuation may be necessary.
Conduct Emergency Procedure - Inflight fire and smoke	Can explain causes of inflight fire or smoke.
Conduct Emergency Procedure - Inflight fire and smoke	Can explain declaring an emergency and selection of a suitable airport or landing location
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can explain the flight characteristics and controllability associated with maneuvering the airplane with powerplant(s) inoperative to include the importance of drag reduction.
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can explain powerplant restart procedures and conditions where a restart attempt is appropriate.
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can explain the procedures used during a powerplant failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required.

Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can explain operational considerations to include: airplane performance, takeoff warning systems, runway length, surface conditions, density altitude, wake turbulence, environmental conditions, obstructions
Conduct OEI Climb to En Route Altitude	Can explain the OEI climb to en route altitude OEM procedure to include an understanding of the difference between climbing at V_{SE} vs. a greater speed per the OEM procedure.
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain flight characteristics and controllability associated with maneuvering to a landing with inoperative powerplant(s).
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain missed approach considerations with a powerplant failure.
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain how to determine a suitable airport.
Conduct Instrument Takeoff	Can describe procedures during takeoff to address the transition from visual flight to instrument flight for both the pilot flying (PF) and pilot monitoring (PM), to include the use and limitations of any flight guidance or visual systems in use. Pilots should be aware of the operator's policy for responding to loss of suitable visual reference during takeoff, in the low and high-speed regimes, both before and after V1 (refer to AC 120-62 for additional information and recommendations for training).
Conduct Instrument Takeoff	Can explain operational factors that could affect an instrument takeoff (airports available in the event of an emergency after takeoff).
Conduct Lower than Standard Minimum Takeoff	Can discuss all relevant OpSpec requirements for Lower than Standard Minimum Takeoff.
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status

Conduct Landing Configuration Stall Prevention	Can explain aerodynamics associated with stalls in the landing configuration, to include the relationship between angle of attack, airspeed, load factor, power setting, aircraft weight and balance, aircraft attitude, and sideslip effects
Conduct Landing Configuration Stall Prevention	Can explain stall characteristics of this aircraft type and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel)
Conduct Landing Configuration Stall Prevention	Can explain factors and situations that Can lead to a stall when configured for landing and actions that Can be taken to prevent it
Conduct Landing Configuration Stall Prevention	Can explain the effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Conduct Landing Configuration Stall Prevention	Can explain fundamentals of stall recovery
Conduct a Landing with Pitch Mistrim	Can explain airplane flight characteristics when pitch is mistrimmed.
Conduct a Landing with Pitch Mistrim	Can explain other airplane system limitations when landing at a high speed.
Conduct a Landing with Pitch Mistrim	Can explain how to determine required landing distance and a suitable runway for landing.
Conduct Landing From a Precision Approach	Can recognize significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH.
Conduct Landing From a Precision Approach	Can recognize ground or navigation system faults, failures or abnormalities at any point during the approach and landing.
Conduct Landing From a Precision Approach	Can explain elements related to the pilot's responsibilities, and the environmental, operational, and meteorological factors that affect landing from a precision approach.
Conduct Landing From a Precision Approach	Can explain approach lighting systems and runway and taxiway signs, markings and lighting.

Conduct Missed Approach	Can explain that when executing a missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure
Conduct Missed Approach	Can explain elements related to missed approach procedures to include reference to standby or backup instruments.
Conduct Missed Approach	Can explain limitations associated with standard instrument approaches, including while using an FMS or autopilot, if equipped.
Conduct Missed Approach - OEI	Can explain that when executing a one engine inoperative missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure.
Conduct Missed Approach - OEI	Can explain elements related to a one engine inoperative missed approach procedures to include reference to standby or backup instruments.
Conduct Missed Approach - OEI	Can explain limitations associated with standard instrument approaches, including while using an FMS or autopilot, if equipped.
Conduct Partial Flap Configuration Stall Prevention	Can explain aerodynamics associated with stalls in a partial flap configuration, to include the relationship between angle of attack, airspeed, load factor, power setting, aircraft weight and balance

Conduct Partial Flap Configuration Stall Prevention	Can explain stall characteristics of this aircraft type and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel)
Conduct Partial Flap Configuration Stall Prevention	Can explain factors and situations that Can lead to a stall during takeoff or while on approach and actions that Can be taken to prevent it
Conduct Partial Flap Configuration Stall Prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Conduct Partial Flap Configuration Stall Prevention	Can explain fundamentals of stall recovery
Conduct Precision Approach	Can describe normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures
Conduct Precision Approach	Can describe procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.
Conduct Precision Approach	Can recognize the limits of acceptable aircraft position and flightpath tracking during approach, flare and rollout. This should be addressed using appropriate displays or annunciations for either automatic or manual landing systems.
Conduct Precision Approach	Can identify nearby critical terrain or obstruction environment;
Conduct Precision Approach	Can explain procedures and limitations associated with a precision approach, including determining required descent rates and adjusting minimums in the case of inoperative equipment.

Conduct Precision Approach	Can explain navigation system displays, annunciations, and modes of operation.
Conduct Precision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).
Conduct Precision Approach	Can explain stabilized approach criteria, to include energy management concepts.
Conduct Rejected Takeoff	Can describe safety considerations following a rejected takeoff
Conduct Rejected Takeoff	Can explain the procedure for accomplishing a rejected takeoff
Conduct Rejected Takeoff	Can explain accelerate/stop distance
Conduct Rejected Takeoff	Can describe conditions and situations that could warrant a rejected takeoff (e.g., takeoff warning systems, powerplant failure, other systems warning/failure)
Conduct Rejected Takeoff	Can define relevant V-speeds for a rejected takeoff
Conduct Taxi	Can explain the information available on an airport diagram, chart supplement and NOTAMS
Conduct Taxi	Can interpret taxi instructions including published taxi routes
Conduct Taxi	Can identify airport and runway markings, signs, and lights
Conduct Taxi	Can describe proper procedures for entering or crossing runways
Conduct Taxi	Can explain procedures for taxi on one engine
Conduct Taxi	Can explain the hazards of low visibility taxi operations
Conduct Taxi	Can describe appropriate aircraft lighting for day and night operations
Conduct Taxi	Can describe appropriate flight deck activities prior to taxi, including route planning, identifying the location of Hot Spots, and coordinating with crew

Conduct Taxi	Can identify The runway and taxiway characteristics concerning width, safety areas, obstacle free zones, markings, hold lines, signs, holding spots, runway slope, suitability of threshold crossing height (TCH), critical area protection, taxiway position markings, runway distance remaining markings, runway distance remaining signs, and LVO/SMGCS should be addressed.
Conduct Taxi	Can explain the definition of a runway incursion: Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
Conduct Taxi	Can explain why thorough planning for taxi operations is essential for a safe operation
Conduct Taxi	Can conduct briefing of the expected taxi route to include any hold short lines and runways to cross, hot spots, and any other potential conflicts. (Once taxi instructions are received, the pretaxi route should be reviewed and monitored. It is essential that any changes to the taxi route be understood by all crewmembers)
Conduct Taxi	Can identify critical locations on the taxi route, where verbal coordination between the PIC and the SIC is important to avoid a runway incursion. (e.g., hot spots/complex intersections, crossing intervening runways, entering and lining up on the runway for takeoff, and approaching and lining up on the runway for landing)
Conduct Taxi	Can conduct briefing of requirements and special considerations during low visibility operations such as: the low visibility taxi chart, if published for the airport

Conduct Taxi	Can maintain knowledge of the aircraft's precise position throughout the taxi operation and mentally calculate the next location on the route that will require increased attention (e.g., a turn onto another taxiway, an intersecting runway, or hot spots)
Conduct Taxi	Can interpret and use all visual aids, and signage and lighting on the airport surface
Conduct Taxi	Can write down complex taxi instructions or copy taxi instructions into the scratch pad of the CDU
Conduct Taxi	Can explain that before entering a runway for takeoff, the flightcrew should verbally coordinate to ensure correct flap setting, identification of the runway, compass heading, FMC entry, and receipt of the proper ATC clearance to use that runway
Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).
Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable
Understand Avionics and Communications - HUD	Can identify all HUD symbology
Understand Avionics and Communications - HUD	Can explain the FPV
Understand Avionics and Communications - HUD	Can explain non-conformal LDI
Understand Avionics and Communications - HUD	Can recognize unusual attitudes when using the HUD
Understand Avionics and Communications - HUD	Can describe crew coordination when using the HUD
Understand Avionics and Communications - HUD	Can describe crew briefings and callouts

Understand Avionics and Communications - HUD	Can describe duties of the pilot flying and pilot monitoring when using HUD
Understand Avionics and Communications - HUD	Can interpret HUD II symbology including caged FPV, non-conformal LDI, and unusual attitudes
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Accelerate-Stop Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed

Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely decisions in relation V_1
Understand determining accelerate-stop / accelerate-go distance per AFM	Can state the different causes of RTOs
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the difference between Takeoff Distance and Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the Balanced Field Concept
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain why V_1 can be no less than V_{MCG} nor can be no more than V_R
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.
Understand determining accelerate-stop / accelerate-go distance per AFM	Can conduct a complete takeoff briefing and explain its importance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely and correct decisions related to rejected takeoffs (RTO)
Understand determining climb performance per AFM	Can explain why OEI data may not ensure climb gradient compliance nor obstacle clearance
Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for “all engine” or “engine inoperative” missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around procedures, acceleration segments or transition following an engine failure between the specified “all-engine lateral flightpath” (or radar vectors) and any specified “engine-inoperative lateral flightpath,” using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.

Understand determining climb performance per AFM	Can explain considerations for OEI departure development
Understand determining climb performance per AFM	Can state the definition of takeoff segment
Understand determining climb performance per AFM	Can state the definitions of gross and net flightpath
Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining climb performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators
Understand determining climb performance per AFM	Can locate FAA TALPA videos online
Understand determining climb performance per AFM	Can describe the segments of an instrument departure procedure
Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures
Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain the airspeeds used during specific phases of flight

Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining performance with an inoperative powerplant for all phases of flight per AFM - Engine Failure Considerations procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can describe the operation of the airplane systems and components using correct terminology
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain system or component limitations
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain immediate action items or memory items, if appropriate
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to

	document inoperative components of this system and explain related procedures
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices) - Aft Equipment Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices) - Aft Floor Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can describe the operation of the airplane systems and components using correct terminology
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain system or component limitations
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain immediate action items or memory items, if appropriate
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental - Airplane Interior Fire / Smoke / Fumes procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - lavatory	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Understand Fire & smoke detection, protection, and suppression - lavatory	Can describe the operation of the airplane systems and components using correct terminology
Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain system or component limitations
Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain immediate action items or memory items, if appropriate
Understand Fire & smoke detection, protection, and suppression - lavatory	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fire & smoke detection, protection, and suppression - lavatory	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - lavatory	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fire & smoke detection, protection, and suppression - powerplant	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fire & smoke detection, protection, and suppression - powerplant	Can describe the operation of the airplane systems and components using correct terminology
Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain system or component limitations
Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain immediate action items or memory items, if appropriate
Understand Fire & smoke detection, protection, and suppression - powerplant	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fire & smoke detection, protection, and suppression - powerplant	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Fire & smoke detection, protection, and suppression - powerplant	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - elevator	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - elevator	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - elevator	Can explain system or component limitations
Understand Flight Controls - elevator	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - elevator	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - elevator	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - elevator	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - elevator	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - flaps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - flaps	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - flaps	Can explain system or component limitations
Understand Flight Controls - flaps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - flaps	Can explain immediate action items or memory items, if appropriate

Understand Flight Controls - flaps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - flaps	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - flaps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - rudder	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - rudder	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - rudder	Can explain system or component limitations
Understand Flight Controls - rudder	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - rudder	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - rudder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - rudder	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - rudder	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - speed brakes	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - speed brakes	Can describe the operation of the airplane systems and components using correct terminology

Understand Flight Controls - speed brakes	Can explain system or component limitations
Understand Flight Controls - speed brakes	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - speed brakes	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - speed brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - speed brakes	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - speed brakes	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - spoilers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - spoilers	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - spoilers	Can explain system or component limitations
Understand Flight Controls - spoilers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - spoilers	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - spoilers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - spoilers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Flight Controls - spoilers - Ground Spoiler Failure Inflight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain system or component limitations
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - Ailerons	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - Ailerons	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - Ailerons	Can explain system or component limitations
Understand Flight Controls - Ailerons	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - Ailerons	Can explain immediate action items or memory items, if appropriate

Understand Flight Controls - Ailerons	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - Ailerons	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - Ailerons	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - Other Flight Deck Systems	Can describe Other flight deck systems related to AWO operations (e.g., autobrakes or autospoilers), and any associated limitations, characteristics, or constraints (e.g., touchdown pitch up or pitch down tendency of certain autospoiler or autobrake settings or non-normal conditions, time delays, or auto-deactivation features with go-around)
Understand Flight Controls - trim systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - trim systems	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - trim systems	Can explain system or component limitations
Understand Flight Controls - trim systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - trim systems	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - trim systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - trim systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Flight Controls - trim systems - mach trim failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define declared runway distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define landing distance available
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define actual landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can interpret and make proper runway condition reports
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "adjusted landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "unfactored (certified) landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "factored landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the point at which landing configuration should be established in a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe a stabilized approach profile for both VMC and IMC conditions
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of a stabilized descent rate
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of indicated airspeed during a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that ATP criteria for touchdown point is the aiming point markings - 250/+500 feet, or where there are no runway aiming point markings 750 to 1,500 feet from the approach threshold of the runway.
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the effect of downhill runway slope on required landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the impact of excess airspeed on landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the purpose and variables involved in a landing performance assessment at time of arrival
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the effect of wind on landing performance

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can identify critical condition combinations that increase risk of a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain proper landing and braking technique
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the difference between AFM dry, certified/approved data and advisory/supplemental data
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can discuss the chain of events that lead to an overrun in this example, and relate it to their own experiences
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can reference applicable regulations for preflight planning
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can calculate the required effective landing distance for dispatch under part 91 and part 135 operations
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the Can U StoP process
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that factors affecting landing distance are cumulative, and why multiple small errors during landing can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how an unstabilized approach can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how high airport elevation can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excess airspeed can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how airplane landing weight can contribute to an aircraft overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing beyond the intended touchdown point can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how downhill runway slope can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excessive height over the runway threshold can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how delayed use of deceleration/maximum breaking can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing with a tailwind can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain predeparture planning versus runway condition at time of arrival

Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Rejected Takeoff
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Engine failure/fire after takeoff decision speed (V1)
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: AP or autothrottle (AT) uncommented disconnect
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Engine exceedance.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Stall protection/stall warning activation.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Flight control jams.
Understand Powerplant - thrust reverse	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - thrust reverse	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - thrust reverse	Can explain system or component limitations
Understand Powerplant - thrust reverse	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - thrust reverse	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - thrust reverse	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - thrust reverse	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Powerplant - thrust reverse - Dispatch With Inoperative Thrust Reverser(s) On Wet Runways procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - thrust reverse - Thrust Reverser Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - thrust reverse - Thrust Reverser Manual Stow Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

SIM 5 Tasks and Expectations

Tasks	**Motor Skill Learning Objectives**	**Attitude Learning Objectives**	**Task Expectation Rating**
Understand determining landing performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance	High

		and actual performance	
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Conduct Before Takeoff Checks		Can manage the risk of errors when assigned an RNAV DP and subsequently receives a change of runway, procedure or transition by verifying the appropriate changes are entered and available for navigation prior to takeoff.	High
Conduct Before Takeoff Checks	Can determine the airplane's takeoff performance for actual		High

	conditions and planned departure runway		
Conduct Before Takeoff Checks	Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		High
Conduct Before Takeoff Checks	Can confirm all systems checked are within an acceptable operating range and are safe for the proposed flight		High
Conduct Before Takeoff Checks	Can explain any system operating characteristic or limitation and any corrective action for a malfunction during the checks		High
Conduct Before Takeoff Checks	Can determine airspeeds/V-speeds and set flight instruments appropriately		High
Conduct Before Takeoff Checks	Can use flight director and autopilot controls for the current flight conditions and takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can perform configuration of navigation equipment for takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can configure communication equipment for takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can obtain and correctly interpret the takeoff and departure clearance		High
Conduct Before Takeoff Checks	Can conduct a briefing that includes procedures for emergency and abnormal situations (e.g., powerplant failure, windshear), which may be encountered during takeoff, and state the planned action if they were to occur		High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks,	High

		encompassing division of attention while conducting before takeoff checks	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing an unexpected change in the runway to be used for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to verify performance data is correct and airspeeds and flight instruments are set for actual conditions and the departure runway	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to set navigation and communication equipment for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing	High

		failure to configure autopilot and flight director controls for departure	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to account for adverse weather conditions prior to takeoff (e.g., snow, ice, gusting crosswinds, low-visibility)	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing A powerplant failure during takeoff or other malfunction considering operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions	High

Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	High
Conduct Clean Configuration Stall prevention	Can maintain coordinated flight in simulated or actual instrument conditions throughout the maneuver		High
Conduct Clean Configuration Stall prevention	Can perform smooth adjustment of pitch attitude, bank angle (15°-30°), and power setting either manually or with the autopilot engaged		High
Conduct Clean Configuration Stall prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		High
Conduct Clean Configuration Stall prevention	Can execute a stall recovery in accordance with procedures set forth in the POH/AFM		High
Conduct Clean Configuration Stall prevention	Can execute a return to the desired flight path		High
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing factors and situations that could lead to an inadvertent stall, spin, and loss of control during cruise flight	High
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing range and limitations of	High

		stall warning indicators (e.g., aircraft buffet, stall horn, stick shaker, etc.)	
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing failure to recognize and recover at the stall warning	High
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing improper stall recovery procedure	High
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing secondary stalls, accelerated stalls, elevator trim stalls, and cross-control stalls	High
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing effect of environmental elements on aircraft performance while in cruise flight as it relates to stalls (e.g.,	High

		turbulence, microbursts, and high-density altitude)	
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing distractions, loss of situational awareness, or improper task management	High
Conduct Departure Procedures	Can select the appropriate instrument departure procedure.		High
Conduct Departure Procedures	Can select, identify and use the appropriate communication facilities associated with the procedure		High
Conduct Departure Procedures	Can select, identify and use the appropriate navigation facilities associated with the procedure		High
Conduct Departure Procedures	Can perform programming the FMS prior to departure and execute avionics setup of flight director and autopilot controls for the departure		High
Conduct Departure Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		High
Conduct Departure Procedures	Can initiate two-way communications with the proper controlling agency		High
Conduct Departure Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		High
Conduct Departure Procedures	Can perform interception of courses, radials, and bearings		High

	appropriate to the procedure, route or clearance		
Conduct Departure Procedures	Can comply with all applicable charted procedures		High
Conduct Departure Procedures	Can maintain the appropriate airspeed ±10 knots, headings ±10°, and altitude ±100 feet, and accurately track a course, radial, or bearing		High
Conduct Departure Procedures	Can execute the departure phase to a point where the transition to the en route environment is complete		High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures and required climb gradients	High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing limitations of air traffic avoidance equipment and use of see and avoid techniques	High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing improper automation management	High

Conduct EFVS Operations		When using the EFVS, can demonstrate familiarization with the interpretation of the display to ensure proper identification of the runway and positioning of the aircraft relative to continuation of the approach to landing. Pilots should understand the limitations of these systems, operational credits available, and authorization required for use. For more information on EFVS, refer to AC 90-106.	High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can respond appropriately to engine failure prior to or during an approach.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can recognize and correctly identify powerplant failure, execute memory items, and maintain positive airplane control.		High

Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can coordinate with crew, if applicable, and complete the appropriate emergency procedures and checklist(s) for simulated propeller feathering or simulated powerplant shutdown.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain the operating powerplant(s) within acceptable operating limits.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can perform establishing the recommended approach and landing configuration and airspeed, ±5 knots, and adjust pitch attitude and power as required to maintain a stabilized approach.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain directional control and appropriate crosswind correction throughout the approach and landing.		High
Conduct Emergency Procedure - Approach and	Can perform smooth, timely, and correct control application		High

Landing with a Powerplant Failure	before, during, and after touchdown.		
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain positive aircraft control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can coordinate with crew and execute after landing checklists(s).		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure inflight or during an approach.	High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels,	High

		persons, and wildlife.	
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing improper airplane configuration.	High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing performing a go-around/rejected landing with a powerplant failure.	High
Conduct Emergency Procedure - Emergency evacuation	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure -		Can identify, assess, and	High

Emergency evacuation		manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	
Conduct Emergency Procedure - Emergency evacuation		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High
Conduct Emergency Procedure - Emergency evacuation		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	High
Conduct Emergency Procedure - Emergency evacuation		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Inflight fire and smoke	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or	High

		checklists in an emergency.	
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	High
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can recognize and correctly identify powerplant failure, execute memory items, and maintain positive airplane control.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can coordinate with crew and execute the appropriate emergency procedures and checklist(s) for propeller feathering or powerplant shutdown.		High
Conduct Emergency Procedure - Inflight	Can use flight controls in the proper combination as recommended by the		High

Powerplant Failure and Restart	manufacturer to maintain best performance and trim as required		
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can determine the cause for the powerplant failure and assess if a restart is a viable option.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can maintain the operating powerplant(s) within acceptable operating limits.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can maintain airspeed ±10 knots, specified heading ±10° and altitude ±100 feet as specified		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can assess powerplant restart and, if appropriate, demonstrate the powerplant restart procedures in accordance with the manufacturer or operator specified procedures and checklists.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can select the nearest suitable airport or landing area.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can perform communication with ATC as appropriate for the situation.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure during flight.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing	High

		failure to follow checklist procedures for a powerplant failure or a powerplant restart.	
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing incorrect diagnosis of the cause of the powerplant failure.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing improper airplane configuration.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing factors and	High

		situations that could lead to an inadvertent stall, spin, and loss of control with an inflight powerplant failure.	
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can execute continued takeoff following failures including engine failure after V1, and any critical failures for the aircraft type that could lead to lateral asymmetry during the takeoff;		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can execute continued takeoff if the powerplant failure occurs at a point where the airplane can continue to a specified airspeed and altitude at the end of the runway commensurate with the airplane's performance capabilities and operating limitations		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can maintain the desired airspeed, ±5 knots after establishing a climb, and use flight controls in the proper combination as recommended by the manufacturer, to maintain best performance and trim		High

Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can maintain the appropriate heading, ±5°, when powerplant failure occurs		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can coordinate with crew and execute the appropriate checklist(s) following the powerplant failure.		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure during takeoff considering operational factors such as takeoff warning inhibit systems, runway/takeoff path length, surface conditions, environment, obstructions, and LAHSO operations.	High

Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to brief the plan for a powerplant failure during takeoff, in a crew environment.	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to correctly identify the inoperative engine (AMEL, AMES).	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing inability to climb or maintain altitude with an inoperative powerplant (AMEL, AMES).	High

Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct OEI Climb to En Route Altitude	Can conduct an OEI climb enroute at either V_{se} or greater, depending on conditions.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can recognize and correctly identify powerplant failure, execute memory items, and maintain positive airplane control.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can coordinate with crew, if applicable, and complete the appropriate emergency procedures and checklist(s) for simulated propeller feathering or simulated powerplant shutdown.		High

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain the operating powerplant(s) within acceptable operating limits.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can perform radio calls as appropriate		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can assess and proceed toward the nearest suitable airport.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can coordinate with crew and execute the approach and landing checklists(s).		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain a stabilized approach, adjusting pitch and power as required, allowing no more than ¼-scale deflection of either the vertical or lateral guidance indications.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain a stabilized final approach from the FAF to the DA/DH allowing no more than ¼- scale deflection of either the vertical or lateral guidance indications and maintain the desired airspeed ±5 knots.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain directional control and appropriate crosswind correction throughout the approach and landing or missed approach.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can immediately execute the missed approach procedure if the required visual references for the runway are not distinctly visible and identifiable upon reaching the DA/DH,		High

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can execute a transition to a normal landing approach when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering upon reaching the DA/DH		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can perform smooth, timely, and correct control application before, during, and after touchdown or during the missed approach.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure inflight or during an approach.	High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct Emergency Procedure - Precision Approach with Powerplant		Can identify, assess, and manage risks, encompassing improper	High

Failure (manual control)		airplane configuration.	
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing landing with a powerplant failure.	High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing missed approach with a powerplant failure.	High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing maneuvering in IMC with a powerplant failure.	High

Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can execute use of LNAV mode(s).		High
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can execute use of VNAV mode(s).		High
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can apply ATC procedures/phraseology		High
Conduct GPS instrument approach procedures with localizer performance with vertical guidance	Can apply functionality of vector to final mode		High

and localizer performance without vertical guidance lines of minima using the wide area augmentation system			
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can perform the use of navigation systems including procedure selection and ILS look-alike principle:		High
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can perform flying of a procedure		High
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area	Can perform setup and interpretation of electronic displays and symbols.		High

augmentation system			
Conduct Instrument Takeoff	Can perform applicable procedures during takeoff to address the transition from visual flight to instrument flight for both the pilot flying (PF) and pilot monitoring (PM), to include the use and limitations of any flight guidance or visual systems in use.		High
Conduct Instrument Takeoff		Can demonstrate familiarization with operator's policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as directional control or stopping performance is concerned, and flight crews should be familiar with appropriate	High

		constraints related to braking reports and the obscuration of appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway contaminants and condition reporting.	
Conduct Instrument Takeoff	Can execute normal takeoff at lowest applicable minima;		High
Conduct Instrument Takeoff	Can perform takeoff with failure of the flight guidance device or ground-based guidance system, at a critical point of the takeoff, unless these systems have failure characteristics that are extremely improbable.		High
Conduct Instrument Takeoff	Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		High
Conduct Instrument Takeoff	Can execute setting of the applicable avionics and flight instruments prior to initiating the takeoff		High
Conduct Instrument Takeoff	Can perform radio calls as appropriate		High
Conduct Instrument Takeoff	Can verify assigned/correct runway		High
Conduct Instrument Takeoff	Can perform clearing the arrival area and execute taxiing into takeoff position and align the airplane on the runway centerline		High

Conduct Instrument Takeoff	Can maintain centerline and proper flight control inputs during the takeoff roll		High
Conduct Instrument Takeoff	can confirm takeoff power and proper engine and flight instrument indications prior to rotation making callouts, as appropriate, for the airplane or per the operator’s procedures		High
Conduct Instrument Takeoff	Can rotates and lift off at the recommended airspeed, establish the desired pitch attitude, and accelerate to the desired airspeed/ V-speed.		High
Conduct Instrument Takeoff	Can execute a smooth transition from visual meteorological conditions (VMC) to actual or simulated instrument meteorological conditions (IMC).		High
Conduct Instrument Takeoff	Can maintain desired heading ±5° and desired airspeeds ±5 knots.		High
Conduct Instrument Takeoff	Can comply with ATC clearances and instructions issued by ATC, as appropriate		High
Conduct Instrument Takeoff	Can execute appropriate after-takeoff checklist(s) in a timely manner		High
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing selection of a runway based on aircraft performance and limitations, available distance, surface conditions, lighting, and wind	High

Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing wake turbulence	High
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for rejected takeoff	High
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for Engine failure in takeoff phase of flight with the ceiling or visibility below the minimums for an instrument approach at departure airport	High
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for Engine failure	High

		in climb phase of flight with the ceiling or visibility below the minimums for an instrument approach at departure airport	
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife	High
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for low altitude maneuvering including stall, spin, or CFIT	High
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing	High

		abnormal operations, to include planning for distractions, loss of situational awareness, or improper task management.	
Conduct Lower than Standard Minimum Takeoff	Can conduct a Lower than Standard Minimum Takeoff in accordance with approved OpSpec C052.		High
Conduct Interior and exterior preflight		Can identify, assess, and manage risks encompassing Inoperative equipment discovered prior to flight.	High
Conduct Interior and exterior preflight		Can identify, assess, and manage risks encompassing external pressures and Aviation security concerns.	High
Conduct Jammed Aileron Procedure	Can execute procedure with smoothness and accuracy		High
Conduct Jammed Aileron Procedure	Can operate the airplane within its limitations		High
Conduct Jammed Aileron Procedure	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct Jammed Aileron Procedure		Can apply aeronautical knowledge to execution of the task	High

Conduct Jammed Aileron Procedure		Can apply crew coordination	High
Conduct Jammed Aileron Procedure		Can conduct effective communicatio n with the other crew members	High
Conduct Jammed Aileron Procedure		Can manage crew cooperation	High
Conduct Jammed Aileron Procedure		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct Jammed Aileron Procedure		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Jammed Aileron Procedure		Can demonstrate good judgement and airmanship	High
Conduct Jammed Elevator Procedure	Can execute procedure with smoothness and accuracy		High
Conduct Jammed Elevator Procedure	Can operate the airplane within its limitations		High
Conduct Jammed Elevator Procedure	Can maintain control of the airplane at all times in such a manner that the successful		High

	outcome of the procedure is never in doubt		
Conduct Jammed Elevator Procedure		Can apply aeronautical knowledge to execution of the task	High
Conduct Jammed Elevator Procedure		Can apply crew coordination	High
Conduct Jammed Elevator Procedure		Can conduct effective communication with the other crew members	High
Conduct Jammed Elevator Procedure		Can manage crew cooperation	High
Conduct Jammed Elevator Procedure		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct Jammed Elevator Procedure		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Jammed Elevator Procedure		Can demonstrate good	High

		judgement and airmanship	
Conduct Landing Configuration Stall Prevention	Can perform smooth adjustment of pitch attitude, bank angle (15°-30°), and power setting either manually or with the autopilot engaged		High
Conduct Landing Configuration Stall Prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		High
Conduct Landing Configuration Stall Prevention	Can perform establishment of the landing configuration (i.e., lift/drag devices set and landing gear extended) and maintain coordinated flight in simulated or actual instrument conditions throughout the maneuver		High
Conduct Landing Configuration Stall Prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		High
Conduct Landing Configuration Stall Prevention	Can execute a stall recovery in accordance with procedures set forth in the POH/AFM		High
Conduct Landing Configuration Stall Prevention	Can execute retraction of the flaps or other lift/drag devices to the recommended setting, retract the landing gear after a positive rate of climb is established and return to the desired flight path		High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing factors and situations that could lead to an inadvertent stall, spin, and	High

		loss of control during landing	
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing range and limitations of stall warning indicators (e.g., aircraft buffet, stall horn, stick shaker, etc.)	High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing failure to recognize and recover at the stall warning	High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing improper stall recovery procedure	High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing secondary stalls, accelerated stalls, elevator trim stalls, and cross-control stalls	High

Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing the effect of environmental elements on aircraft performance while landing as it relates to stalls (e.g., turbulence, icing, microbursts, and high-density altitude)	High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing stalls at a low altitude	High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing distractions, loss of situational awareness, or improper task management	High
Conduct a Landing with Pitch Mistrim	Can recognize the malfunction.		High
Conduct a Landing with Pitch Mistrim	Can coordinate with crew, if applicable, and complete applicable checklist(s) for the malfunction, approach, and landing.		High
Conduct a Landing with Pitch Mistrim	Can coordinate with ATC as needed and select an airport/runway with sufficient length for landing.		High

Conduct a Landing with Pitch Mistrim	Can calculate the correct airspeeds/V-speeds for approach and landing.		High
Conduct a Landing with Pitch Mistrim	Can perform establishing the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required to maintain a stabilized approach.		High
Conduct a Landing with Pitch Mistrim	Can select a suitable touchdown point considering wind, landing surface, and obstructions.		High
Conduct a Landing with Pitch Mistrim	Can perform smooth, timely, and correct control application before, during, and after touchdown.		High
Conduct a Landing with Pitch Mistrim	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High
Conduct a Landing with Pitch Mistrim	Can maintain positive aircraft control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		High
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing hazards associated with a pitch mistrim approach and landing.	High
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing	High

		selection of a runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing wake turbulence.	High
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing go-around/rejected landing.	High
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing low altitude maneuvering	High

		including stall, spin, or CFIT.	
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Landing From a Precision Approach	Can perform proper reaction to significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH. Expected pilot response to failure after touchdown should be addressed as well.		High
Conduct Landing From a Precision Approach	Can recognize and execute appropriate actions in response to ground or navigation system faults, failures or abnormalities at any point during the approach and landing.		High
Conduct Landing From a Precision Approach		Can appreciate that pilots should be familiar with the need to report navigation system anomalies or discrepancies, failures of any lighting system (e.g., approach lights, runway lights, touchdown	High

		zone (TDZ) lights, centerline lights), or any other discrepancies that could be pertinent to operations.	
Conduct Landing From a Precision Approach		Can demonstrate familiarization with operator's policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as directional control or stopping performance is concerned, and flight crews should be familiar with appropriate constraints related to braking reports and the obscuration of	High

		appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway contaminants and condition reporting.	
Conduct Landing From a Precision Approach	Can maintain the desired airspeed, ±5 knots, and vertical and lateral guidance within ¼-scale deflection of the indicators during the descent from DA/DH to a point where visual maneuvering is used to accomplish a normal landing.		High
Conduct Landing From a Precision Approach	Can comply with all ATC advisories, such as NOTAMs, windshear, wake turbulence, runway surface, braking conditions, and other operational considerations.		High
Conduct Landing From a Precision Approach	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High
Conduct Landing From a Precision Approach	Can maintain positive airplane control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		High
Conduct Landing From a Precision Approach	Can demonstrate SRM or CRM, as appropriate.		High

Conduct Landing From a Precision Approach	Can apply runway incursion avoidance procedures.		High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing selection of an approach procedure and runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing wake turbulence.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for missed approach	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for land and hold short operations (LAHSO)	High

Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for distractions, loss of situational awareness, or improper task management.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for attempting to land from an unstable approach.	High

Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for flying below the glidepath.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for transitioning from instrument to visual references for landing.	High
Conduct Missed Approach	Can execute a missed approach from the MDA, DA/DH, or AH.		High
Conduct Missed Approach	Can execute a missed approach from a low altitude that could result in a touchdown during go-around (balked or rejected landing).		High
Conduct Missed Approach	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		High
Conduct Missed Approach	Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and initiate a positive rate of climb at the appropriate airspeed/V- speed, ±5 knots.		High
Conduct Missed Approach	Can coordinate with crew and execute the appropriate procedures and checklist(s) in a timely manner.		High

Conduct Missed Approach	Can comply with the published or alternate missed approach procedure.		High
Conduct Missed Approach	Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		High
Conduct Missed Approach	Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure.		High
Conduct Missed Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		High
Conduct Missed Approach	Can demonstrate effective CRM		High
Conduct Missed Approach	Can execute re-engagement of the autopilot at appropriate times during the missed approach procedure.		High
Conduct Missed Approach	Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix, or other clearance limit, as appropriate, or as directed by the evaluator.		High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to follow prescribed procedures.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing holding, diverting, or electing to fly the approach again.	High

Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing factors that might lead to executing a missed approach procedure before the MAP or to a go-around below DA/MDA.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	High
Conduct Missed Approach - OEI	Can execute a one engine inoperative missed approach from the MDA, DA/DH, or AH.		High
Conduct Missed Approach - OEI	Can execute a one engine inoperative missed approach from a low altitude that could result in a touchdown during		High

	go-around (balked or rejected landing).		
Conduct Missed Approach - OEI	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI	Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and initiate a positive rate of climb at the appropriate airspeed/V- speed, ±5 knots during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI	Can coordinate with crew and execute the appropriate procedures and checklist(s) in a timely manner during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI	Can comply with the published or alternate missed approach procedure during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI	Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		High
Conduct Missed Approach - OEI	Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI	Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		High

Conduct Missed Approach - OEI	Can demonstrate effective CRM during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI	Can execute re-engagement of the autopilot at appropriate times during the one engine inoperative missed approach procedure.		High
Conduct Missed Approach - OEI	Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix, or other clearance limit, as appropriate, or as directed by the evaluator during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing failure to follow prescribed procedures during a one engine inoperative missed approach.	High
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing holding, diverting, or electing to fly the approach again during a one engine inoperative missed approach.	High

Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach during a one engine inoperative missed approach.	High
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing factors that might lead to executing a one engine inoperative missed approach procedure before the MAP or to a go-around below DA/MDA.	High
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems during a one	High

		engine inoperative missed approach.	
Conduct Partial Flap Configuration Stall Prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		High
Conduct Partial Flap Configuration Stall Prevention	Can execute a stall recovery in accordance with procedures set forth in the POH/AFM		High
Conduct Partial Flap Configuration Stall Prevention	Can execute retraction of the flaps or other lift/drag devices to the recommended setting, retract the landing gear after a positive rate of climb is established, and return to the desired flight path		High
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing factors and situations that could lead to an inadvertent stall and loss of control during takeoff or while on approach	High
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing range and limitations of stall warning indicators (e.g., aircraft buffet, stall horn, stick shaker, etc.)	High

Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing failure to recognize and recover at the stall warning	High
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing improper stall recovery procedure	High
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing secondary stalls, accelerated stalls, elevator trim stalls, and cross-control stalls	High
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing the effect of environmental elements on aircraft performance while in a partial flap configuration as it relates to stalls (e.g., turbulence, microbursts, and high-density altitude)	High

Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management	High
Conduct Precision Approach	Can perform appropriate normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures		High
Conduct Precision Approach	Can perform procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.		High
Conduct Precision Approach		Can appreciate constraints for head winds, tail winds, crosswinds, and the effect of vertical and horizontal wind shear on automatic systems, flight directors (F/D), or other	High

		system (e.g., HUD, SVGS, etc.) performance. For systems such as HUDs that have a limited field of view (FOV), or synthetic reference systems, pilots should be familiar with the display limitations of these systems and expected pilot actions in the event that the aircraft reaches or exceeds a display limit capability.	
Conduct Precision Approach	Can execute types of instrument procedures approved for the air carrier (standard and special, lowest straight-in, or circling minima, if applicable); according to the operator's manuals, charts and checklists, on the aircraft type, model and series flown.		High
Conduct Precision Approach	Can use flight guidance and/or visual system(s) and their corresponding category(s) of minima for each authorized system;		High
Conduct Precision Approach	Can use NAVAID(s) and visual aids used (LVO/SMGCS lighting if applicable);		High

Conduct Precision Approach	Can apply Flightcrew procedures used (e.g., PF/PM duties, monitored approach, or call-outs);		High
Conduct Precision Approach		Can demonstrate familiarization with airport and runway characteristics typically experienced;	High
Conduct Precision Approach	Can perform relevant normal, non-normal, and environmental conditions. Training and evaluation need only be conducted using relevant and representative procedures and conditions (e.g., a representative mix of day, night, dusk, variable/patchy conditions, representative temperatures, landing runway altitudes, precipitation conditions, turbulence, and icing conditions); and		High
Conduct Precision Approach	Can respond appropriately to aircraft and ground system failures.		High
Conduct Precision Approach	Can perform the precision instrument approaches selected by the instructor/evaluator.		High
Conduct Precision Approach	Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		High
Conduct Precision Approach	Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		High

Conduct Precision Approach	Can comply in a timely manner with all clearances, instructions, and procedures.		High
Conduct Precision Approach	Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		High
Conduct Precision Approach	Can coordinate with ATC if unable to comply with a clearance.		High
Conduct Precision Approach	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		High
Conduct Precision Approach	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High
Conduct Precision Approach	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		High
Conduct Precision Approach	Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		High
Conduct Precision Approach	Can maintain a stabilized final approach from the Final Approach Fix (FAF) to DA/DH allowing no more than ¼-scale deflection of either the vertical or lateral guidance		High

	indications and maintain the desired airspeed ±5 knots		
Conduct Precision Approach	Can immediately initiate the missed approach procedures if the required visual references for the runway are not distinctly visible and identifiable upon reaching the DA/DH.		High
Conduct Precision Approach	Can, upon reaching the DA/DH, perform a transition to a normal landing when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering		High
Conduct Precision Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to follow the correct approach procedure (e.g., descending below the glideslope, etc.).	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing selecting an	High

		incorrect navigation frequency.	
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing an unstable approach, including excessive descent rates.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing deteriorating weather conditions on approach.	High

Conduct Precision Approach		Can identify, assess, and manage risks, encompassing continuing to descend below the Decision Altitude (DA)/Decision Height (DH) when the required visual references are not visible.	High
Conduct Rejected Takeoff	Can execute Rejected takeoff from a point prior to V1 (including an engine failure);		High
Conduct Rejected Takeoff	Can perform rejected takeoff requiring transfer of control (if applicable) for low-visibility takeoff minima where a flight guidance and/or vision system is required		High
Conduct Rejected Takeoff	Can perform rejected takeoff with failure of the flight guidance device or ground-based guidance system, at a critical point of the takeoff, unless these systems have failure characteristics that are extremely improbable.		High
Conduct Rejected Takeoff	Can execute aborted takeoff if the powerplant failure occurs at a point during the takeoff where the abort procedure can be initiated and the airplane can be safely stopped on the remaining runway		High
Conduct Rejected Takeoff	Can execute prompt reduction of power and maintain positive aircraft control using drag and braking devices, as appropriate, to come to a stop		High

Conduct Rejected Takeoff	Can coordinate with crew, if applicable, and complete the appropriate procedures, checklist(s), and radio calls following a rejected takeoff in a timely manner		High
Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing a powerplant failure or other malfunction during takeoff.	High
Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing failure to maintain directional control following a rejected takeoff	High
Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing rejecting takeoff with inadequate stopping distance	High
Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing a high-speed abort distraction, loss of situational awareness, or	High

		improper task management	
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify currency and integrity of aircraft navigation data		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can obtain a receiver autonomous integrity monitoring (RAIM) prediction for the planned RNP operation		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify successful completion of RNP system self-tests;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform initialization navigation system position		High

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform retrieval of an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can execute an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform adherence to speed and/or altitude constraints associated with RNP operations		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can select the appropriate STAR or SID for the active runway in use and be familiar with procedures to deal with a runway change		High
Conduct RNP operations in the United States, oceanic and remote continental airspace,	Can verify waypoints and flight plan programming;		High

and in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform a manual or automatic runway update (with takeoff point shift for Inertial Reference Units (IRU) only);		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying direct to a waypoint		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying a course/track to a waypoint		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform interception of a course/track		High

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform selecting/arming the navigation system for an ILS or GLS transition		High
Conduct Taxi	Low visibility taxi and ground operations should be trained to the extent practical and beneficial. Such training should address operations at typical airports or alternately, at airports frequently experiencing low-visibility conditions, complex airports on the operator’s route system, airports with particular low visibility ground movement difficulties, or rarely used but significant contingency airports, as determined appropriate by the operator.		High
Conduct Taxi	perform either PF or PM duties, unless otherwise limited by the operator’s policies or aircraft characteristics (e.g., single HUD).		High
Conduct Taxi	Can record taxi instructions, respond to taxi clearances, and review taxi routes on the airport diagram.		High
Conduct Taxi	Can use an airport diagram or taxi chart during taxi		High
Conduct Taxi	Can comply with ATC clearances and instructions and observe all runway hold lines, ILS critical areas, beacons, and other airport/taxiway markings and lighting		High

Conduct Taxi	Can coordinate with crew, if applicable, and complete the appropriate checklist(s) prior to and during taxi		High
Conduct Taxi	Can maintain situational awareness during taxi		High
Conduct Taxi	Can maintain correct and positive airplane control, proper speed, appropriate use of wheel brakes and reverse thrust		High
Conduct Taxi	Can maintain separation between other aircraft, vehicles, and persons to avoid an incursion/incident/accident		High
Conduct Taxi	Can use aircraft exterior lighting for day and night operations		High
Conduct Taxi		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing a taxi route or departure runway change	High
Conduct Taxi		Can identify, assess, and manage risks,	High

		encompassing failure to complete checklist(s)	
Conduct Taxi		Can identify, assess, and manage risks, encompassing low visibility taxi operations	High
Conduct Taxi		Can conduct a briefing on the timing and execution of aircraft checklists and company communications at the appropriate times and locations, ensuring the pilot who is not taxiing the aircraft can be available to participate in verbal coordination with the pilot who is taxiing the aircraft	High
Conduct Taxi		Can consider the anticipated duration of the taxi operation, the locations of hot spots/complex intersections and runway crossings, and the visibility along the taxi	High

		route when briefing tasks or accomplishing checklists	
Conduct Taxi		Can manage pilot workload and heads-down time during taxi by conducting predeparture checklists, including setting the takeoff flap setting, when the aircraft is stopped or while taxiing straight ahead on a taxiway without complex intersections and hot spots	High
Conduct Taxi		Can maintain a sterile cockpit during taxi operations	High
Conduct Taxi	Can use airport diagram to follow progress of the taxi operation		High
Conduct Taxi		Can manage the risk of expectation bias, and follow the clearance or instructions that are actually received, and not the ones	High

		they expected to receive.	
Conduct Taxi		Can be alert to ATC instructions to hold short of an ILS critical area holding line.	High
Conduct Taxi		Can monitor the aircraft’s progress on the airport diagram to ensure that the pilot taxiing the aircraft is following the instructions received from the ATC while maintaining outside vigilance	High
Conduct Taxi		Can determine whether or not to accept last-minute turnoff instructions from ATC, refusing such clearance unless the crew clearly understands the instructions and are certain that they can safely comply.	High
Conduct Taxi		Can respond to all hold short	High

		instructions, and verifies with other crew members or ATC to ensure agreement and understanding	
Conduct Taxi	Can execute bringing the aircraft to a complete stop, or be in a phase of taxiing that has no risk of a runway incursion before continuing with operational duties and checklists		High
Conduct Taxi		Can comply with hold short or crossing clearance when approaching an entrance to a runway.	High
Conduct Taxi		Can explain or demonstrate proper actions if the crew becomes disoriented: never stop on a runway, and initiate communications with ATC to regain orientation.	High
Conduct Taxi		Can demonstrate vigilance when instructed to taxi and “Line Up and Wait”. Turns Traffic	High

		Alert and Collision Avoidance System (TCAS)/traffic advisory systems (TAS) on in order obtain awareness of any aircraft that may be landing on your runway.	
Conduct Taxi		Can resolve all misunderstandings or disagreements regarding taxi clearance to the satisfaction of all flightcrew members before taxiing the aircraft.	High
Conduct Taxi	Can apply use of the airport diagram after receiving a clearance, and confirms and verbalizes the assigned runway and taxi route, including any instructions to hold short of, or cross, a runway. If there is any doubt, speaks up and resolve the uncertainty before taxi		High
Conduct Taxi		Can coordinate with other flightcrew member(s) if stopping and resuming the monitoring of the ATC	High

		frequency, for example when it becomes necessary for a flightcrew member to stop monitoring any ATC frequency to prepare the aircraft for takeoff or landing.	
Conduct Taxi		Can assess any upcoming hold short instructions or clearances that could be misinterpreted prior to stopping and after resuming monitoring of the taxi. An example may include: “I’m heads-down, right turn ahead at Alpha,” or “I’m back, any changes?”	High
Conduct Taxi		Can appreciate that time away from monitoring ATC should be avoided with complex taxi routing or crossing of runways. Any	High

		instructions or information received or transmitted during that flightcrew member's absence from the ATC frequency should be reviewed and confirmed upon his or her return.	
Conduct Taxi		Can coordinate verbally at complex intersections to be sure that: the intersection is correctly identified and confirmed using the airport diagram and the heading indicator	High
Conduct Taxi		Can state "approaching (specific runway number) hold short line. Before crossing any hold short line, the flightcrew should visually scan to the left and	High

		to the right, including the full length of the runway and its approach paths, and coordinate verbally (e.g., “clear right/left” or that the scan area is not clear).	
Conduct Taxi		Can coordinate verbally and agree on the runway assigned by ATC, the upcoming assigned exit, and any restrictions, such as hold short points of an intersecting runway and the aircraft’s parking area after landing	High
Conduct Taxi	Can execute turning on the rotating beacon whenever an engine is running		High
Conduct Taxi	Can execute turning on navigation, position, anti-collision, and logo lights, if available, to signal intent to other pilots prior to commencing taxi		High
Conduct Taxi	Can execute turning on the taxi light when the aircraft is moving or intending to move on the ground, and turning it		High

	off when stopped or yielding or as a consideration to other pilots or ground personnel		
Conduct Taxi	Can execute illuminating all lights when crossing a runway when appropriate		High
Conduct Taxi		Can consider any adverse effects to safety that illuminating the forward-facing lights will have on the vision of other pilots or ground personnel during runway crossings, and adjust operation accordingly	High
Conduct use of FMS	Can perform use of the automatic throttle, flight management computer, or other speed management system, if applicable.		High
Conduct use of FMS		Can manage the risk of errors when receiving a change to assigned routing by ensuring the waypoints sequence depicted by their navigation system matches the route depicted	High

		on the appropriate chart(s) and their assigned route	
Conduct use of FMS	Can verify currency of aircraft navigation data.		High
Conduct use of FMS	Can perform flying a course/track to a waypoint.		High
Conduct use of FMS	Can perform interception of a course/track		High
Conduct use of FMS	Can comply with a vectored off and execute rejoining a procedure.		High
Conduct use of FMS	Can determine cross-track error/deviation		High
Conduct use of FMS	Can execute insertion and deletion of a route discontinuity		High
Conduct use of FMS	Can verify successful completion of RNAV system self-tests		High
Conduct use of FMS	Can execute initialization of RNAV system position		High
Conduct use of FMS	Can execute retrieval and flying of a DP or STAR with appropriate transition		High
Conduct use of FMS	Can comply with speed and/or altitude constraints associated with a DP or STAR.		High
Conduct use of FMS	Can verify waypoints and flight plan programming		High
Conduct use of FMS	Can perform flying direct to a waypoint		High
Conduct use of FMS	Can demonstrate general awareness of all three styles of flight director		High
Conduct use of FMS	Can identify symbology available in synthetic vision system		High
Conduct use of FMS	Can differentiate between conformal and non-conformal scaling in the HUD and synthetic vision		High

Conduct use of HUD	Conduct takeoff and departure using HUD to ATP ACS standards		High
Conduct use of HUD	Conduct approach and landing using HUD to ATP ACS standards		High
Conduct use of HUD	Conduct takeoff or missed approach without using HUD to ATP ACS standards		High
Conduct use of HUD	Conduct instrument approach without using HUD to ATP ACS standards		High
Conduct use of HUD	Can use caged, uncaged and clear modes in crosswind conditions		High
Conduct use of HUD	Can perform approach to a black hole airport using flight path angle (FPA)		High
Conduct use of HUD	Can relate glidepath angle to the symbolic runway.		High
Conduct use of HUD	Can use the flare symbol as a cue in the Honeywell HUD Model 2020 and as guidance in the HUD II.		High
Conduct use of PlaneView System, if applicable	Can perform use of the PlaneView system installed in the full flight training equipment		High
Conduct use of TCAS	Can demonstrate the proper use of controls including aircraft configuration required to initiate a self-test.		High
Conduct use of TCAS	Can demonstrate the proper use of controls including steps required to initiate a self-test.		High
Conduct use of TCAS	Can demonstrate the proper use of controls including recognizing when the self-test was successful and when it was unsuccessful. When the self-test is unsuccessful, recognizing the reason for the failure, and if possible, correcting the problem.		High

Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining takeoff performance (e.g.,		Can identify, assess, and manage risks encompassing	High

balance field length, VMCG) per AFM		runway excursions	
Understand determining accelerate-stop / accelerate-go distance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining		Can identify, assess, and	High

accelerate-stop / accelerate-go distance per AFM		manage risks encompassing runway excursions	
Understand determining accelerate-stop / accelerate-go distance per AFM		Can appreciate that take off distance numbers provided by the AFM are the most restrictive result of numerous part 25 requirements	High
Understand determining climb performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance	High

		and actual performance	
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and runway excursions	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High

Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining weight and balance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining weight and balance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fire & smoke detection, protection, and		Can identify, assess, and manage risks	High

suppression - pneumatic and environmental		encompassing failure to monitor and manage automated systems.	
Understand Fire & smoke detection, protection, and suppression - lavatory		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fire & smoke detection, protection, and suppression - lavatory		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fire & smoke detection, protection, and suppression - lavatory		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fire & smoke detection, protection, and suppression - lavatory		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fire & smoke detection, protection, and suppression - powerplant		Can identify, assess, and manage risks encompassing failure to	High

		detect system malfunctions or failures.	
Understand Fire & smoke detection, protection, and suppression - powerplant		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fire & smoke detection, protection, and suppression - powerplant		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fire & smoke detection, protection, and suppression - powerplant		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - elevator		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - elevator		Can identify, assess, and manage risks encompassing failure to follow appropriate	High

		checklists or procedures	
Understand Flight Controls - elevator		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - elevator		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - flaps		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - flaps		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - flaps		Can identify, assess, and manage risks encompassing improper management of a system failure	High

Understand Flight Controls - flaps		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - rudder		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - rudder		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - rudder		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - rudder		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Understand Flight Controls - speed brakes		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - speed brakes		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - speed brakes		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - speed brakes		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - spoilers		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - spoilers		Can identify, assess, and manage risks	High

		encompassing failure to follow appropriate checklists or procedures	
Understand Flight Controls - spoilers		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - spoilers		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - stability augmentation system (e.g., yaw damper)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - stability augmentation system (e.g., yaw damper)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - stability augmentation system (e.g., yaw damper)		Can identify, assess, and manage risks encompassing improper	High

		management of a system failure	
Understand Flight Controls - stability augmentation system (e.g., yaw damper)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - Ailerons		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - Ailerons		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - Ailerons		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - Ailerons		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Flight Controls - trim systems		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - trim systems		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - trim systems		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - trim systems		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand OEM checklist philosophy		Can appreciate that while there are no defined memory items in the AFM, pilots should still be	High

		familiar enough with the aircraft to be able to perform initial and critical items without first referencing associated documentation. In addition, pilots are expected to don oxygen masks promptly when appropriate (e.g., when smoke is detected).	
Understand OEM checklist philosophy		Can appreciate that abnormal and emergency procedures are presented in quick reference handbooks (QRH) of an identical format for all three aircraft. Although some individual steps may differ or use different acronyms, these steps are carried out under the	High

		guidance of the handbook in a logical decision-making manner	
Understand Powerplant - thrust reverse		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - thrust reverse		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Powerplant - thrust reverse		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - thrust reverse		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Conduct EFVS Operations	Per § 61.66(b)(2)(i) can integrate the following: it is necessary that the flight training curriculum includes preflight and in-flight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes, and associated systems, and adjustments for brightness and contrast under day and night conditions. It may be beneficial to perform these tasks in the curriculum using either the manufacturer's recommended procedures or procedures applicable to the operator.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(ii) can integrate the following: it is necessary that the flight training curriculum includes proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings. It may be beneficial for the curriculum to allow pilots to become familiar with the use of installed equipment such as an EFVS in all phases of flight.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can use a sample of approach types for the EFVS operation being trained (e.g., precision and nonprecision, if applicable).		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) use a sample of crosswind conditions and offset angles that emphasize the challenges		High

	of operating with the limited FOV with an EFVS.		
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can conduct EFVS operations in visibilities less than IAP minimum visibilities. This may not be practical if training is conducted in an aircraft. If the training is accomplished in a full flight simulator (FFS), conduct the training with the enhanced visibilities representative of the EFVS sensor performance.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iv) can integrate the following: it is necessary that the flight training curriculum includes determining enhanced flight visibility. The curriculum can help pilots learn how to determine enhanced flight visibility using techniques and methods similar to the techniques and methods used for determining flight visibility when conducting an approach without an EFVS.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(v) can integrate the following: it is necessary that the flight training curriculum includes identifying required visual references appropriate to EFVS operations. The curriculum can help pilots learn how to identify required visual references using an EFVS with techniques and methods similar to the techniques and methods used for identifying the required visual references when conducting an approach		High

	without the use of an EFVS. The PM may use the PM display, if available, to assist the PF in this task.		
Conduct EFVS Operations	Per § 61.66(b)(2)(vi) can integrate the following: it is necessary that the flight training curriculum includes transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment. The curriculum can help pilots learn how to acquire visual references with natural vison at 100 feet during an EFVS-100 operation. There are many acceptable techniques for identifying the visual references with natural vision while the pilot continues using the EFVS to provide the enhanced flight visibility required for the operation.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) use procedures applicable to the PF and PM, crew briefings, procedures, callouts, and coordination items for EFVS operations, including annunciation of published minimums during operation below the DA/DH or MDA.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct procedures at 100 feet during an EFVS-100 operation.		High

Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct EFVS failure procedures (procedures for an EFVS failure or a system degradation during an EFVS operation).		High
Conduct EFVS Operations	Can conduct preflight and inflight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes and associated systems, and adjustments for brightness and contrast under day and night conditions.		High
Conduct EFVS Operations	Can use proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings.		High
Conduct EFVS Operations	Can use proper piloting techniques for the use of EFVS during instrument app roaches, to include operations below DA/DH or MDA as applicable to the EFVS operations to be conducted, under both day and night conditions.		High
Conduct EFVS Operations	Can determine enhanced flight visibility.		High
Conduct EFVS Operations	Can identify required visual references appropriate to EFVS operations.		High
Conduct EFVS Operations	Can adjust when transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment.		High
Conduct EFVS Operations	Can conduct normal, abnormal, emergency, and		High

	crew coordination procedures when using an EFVS.		
Conduct Stall Prevention and Recovery	Can recognize how changes to factors such as weight, G loading, CG, bank angle, altitude, and icing affect the handling characteristics and stall speeds of the airplane.		High
Conduct Stall Prevention and Recovery	Can appreciate inappropriate use or inadequate monitoring of autoflight modes can be a contributing factor to a stall event. For example, climbing in vertical speed can lead to a stall event when pilots do not notice the airspeed reducing as the altitude increases; whereas, climbing in modes such as indicated airspeed or flight level change can protect against unnoticed deceleration in a climb.		High
Conduct Stall Prevention and Recovery	Can recognize impending stall characteristics for the specific airplane, including buffeting of a severity that may make it difficult to read the instruments.		High
Conduct Stall Prevention and Recovery	Can recognize and review of AOA indicators (if installed) or interpretation of other representations of AOA such as pitch-limit indicators or speed display symbology that can assist in stall prevention.		High
Conduct Stall Prevention and Recovery	Can recognize noises associated with stick shakers, autopilot, and autothrottle/autothrust disconnect alarms can cause confusion in the cockpit.		High

Conduct Stall Prevention and Recovery	Can differentiate between high and low altitude stalls, pitch rate sensitivity of flight controls (due to lack of aerodynamic damping), and amount of altitude loss required for recovery.		High
Conduct Stall Prevention and Recovery	Can appreciate the altitude effects of thrust available for recovery, and lack of airflow through engines at high AOA (reinforces reduction of AOA must precede any increase of thrust).		High
Conduct Stall Prevention and Recovery	Can execute Scenario-Based Training (SBT). The goal of SBT is to develop decision-making skills relating to stall prevention and recovery during Line-Oriented Flight Training (LOFT). Emphasis should be placed on preventing conditions that may lead to a stall event. SBT would normally be used after a pilot demonstrates proficiency in maneuver-based training and during advanced stages of training, such as upgrade training and recurrent training. (1) Scenarios. When possible, scenarios should include accident, incident, ASAP, FOQA, and/or ASRS data to provide realistic opportunities to see how threat situations may develop and how they should be managed during line operations. Sample SBT lesson plans are provided in Appendix 3. (2) Briefing. Pilots should not		High

	normally be briefed that they are receiving SBT. The concept is line-oriented flying, which allows the pilots to recognize and manage the expected or unexpected stall threats as they develop during normal operations. However, situations may arise where pilots exhibit excellent stall prevention skills and initiate a recovery prior to the complete unfolding of a scenario. That is the desired objective. In those instances, the instructor has the discretion whether to repeat the scenario and then showing and discussing how the many cues typically cascade as the event progresses. Such explanations can reinforce a pilot's knowledge and allow sharpening of awareness and prevention skills.		
Conduct Stall Prevention and Recovery	Can conduct a takeoff configuration stall prevention scenario. See Appendix 3, Scenario 2 for details.		High
Conduct Stall Prevention and Recovery	Can conduct a landing configuration stall prevention scenario. See Appendix 3, Scenario 3 for details.		High

SIM 6 Learning Objectives

SIM 6 Briefing Items

Tasks	**Knowledge & Cognitive Learning Objectives**

Conduct Circling Approach	Can explain elements related to circling approach procedures and limitations including approach categories and related airspeed restrictions
Conduct Landing From a Circling Approach	Can explain elements related to the pilot's responsibilities, and the environmental, operational, and meteorological factors that affect landing from a circling approach.
Conduct Landing From a Circling Approach	Can explain approach lighting systems and runway and taxiway signs, markings and lighting.

SIM 6 Tasks and Expectations

Tasks	Motor Skill Learning Objectives	Attitude Learning Objectives	Task Expectation Rating
Conduct Circling Approach	Can comply with the circling approach procedure considering turbulence, windshear, and the maneuvering capability and approach category of the aircraft.		High
Conduct Circling Approach	Can confirm the direction of traffic and adhere to all restrictions and instructions issued by ATC.		High
Conduct Circling Approach	Can perform establishing the correct approach and landing configuration		High
Conduct Circling Approach	Can maintain a stabilized approach and a descent rate that ensures arrival at the MDA, or the preselected circling		High

	altitude above the MDA, prior to the missed approach point.		
Conduct Circling Approach	Can maintain airspeed ±5 knots, desired heading/track ±5°, and altitude +100/-0 feet until descending below the MDA or the preselected circling altitude above the MDA.		High
Conduct Circling Approach	Can perform visually maneuvering to a base or downwind leg appropriate for the landing runway and environmental conditions.		High
Conduct Circling Approach	Can perform a turn in the appropriate direction using the correct procedure and execute configuring the airplane if a missed approach occurs		High
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing failure to follow prescribed circling approach procedures.	High
Conduct Circling Approach		Can identify, assess, and manage risks, encompassin	High

		g executing a circling approach at night or with marginal visibility.	
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing losing visual contact with an identifiable part of the airport.	High
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	High
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing failure to maintain an appropriate altitude or airspeed while circling.	High
Conduct Circling Approach		Can identify, assess, and manage	High

		risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing executing an improper missed approach after the MAP while circling.	High
Conduct Landing From a Circling Approach	Can maintain the airport environment in sight and remain within the circling approach radius applicable to the approach category to a position from which a stabilized descent to landing can be made.		High
Conduct Landing From a Circling Approach	Can comply with all ATC advisories, such as NOTAMs, windshear, wake turbulence, runway surface, braking conditions, and other operational considerations.		High
Conduct Landing From a Circling Approach	Can perform alignment of the airplane for a normal landing on the selected runway		High

	without excessive maneuvering and without exceeding the normal operating limits of the airplane. The angle of bank should not exceed 30°.		
Conduct Landing From a Circling Approach	Can perform smooth, timely, and correct control application throughout the circling maneuver and maintain appropriate airspeed, ±5 knots. If applicable, maintain altitude +100/−0 feet, and desired heading/track, ±5°.		High
Conduct Landing From a Circling Approach	Can confirm the airplane is configured for landing.		High
Conduct Landing From a Circling Approach	Can scan the landing runway and adjoining area for traffic and obstructions		High
Conduct Landing From a Circling Approach	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High
Conduct Landing From a	Can maintain positive aircraft control throughout		High

Circling Approach	the landing using drag and braking devices, as appropriate, to come to a stop.		
Conduct Landing From a Circling Approach	Can demonstrate SRM or CRM, as appropriate.		High
Conduct Landing From a Circling Approach	Can apply runway incursion avoidance procedures.		High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing landing from a circling approach	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing selection of an approach procedure and runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks,	High

		encompassing wake turbulence.	
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for missed approach	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for land and hold short operations (LAHSO)	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for low altitude maneuvering	High

		including stall, spin, or CFIT.	
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for distractions, loss of situational awareness, or improper task management.	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for attempting to land from an unstable approach.	High
Checking: Preflight Inspection			High
Checking: Start Procedures			High
Checking: Taxiing/Runway Operations			High
Checking: Pretakeoff Checks			High
Checking: Normal Takeoff			High
Checking: Crosswind Takeoff			High

Checking: Instrument Takeoff			High
Checking: Takeoff with Powerplant Failure			High
Checking: Rejected Takeoff			High
Checking: Area Departure			High
Checking: Steep Turns			High
Checking: Stall Prevention (Approaches to Stalls)			High
Checking: Powerplant Failure			High
Checking: Area Arrival			High
Checking: Holding			High
Checking: Normal ILS Approach			High
Checking: Engine-out ILS			High
Checking: Coupled Approach			High
Checking: Nonprecision Approach			High
Checking: Second Nonprecision Approach			High
Checking: Missed Approach from an ILS			High

Checking: Second Missed Approach			High
Checking: Circling Approach			High
Checking: EFVS Approach			High
Checking: Normal Landing			High
Checking: Crosswind Landing			High
Checking: Landing from an ILS			High
Checking: Landing with an Engine Out			High
Checking: Circling Approach to Landing			High
Checking: Rejected Landing			High
Checking: No-flap Approach to Landing			High
Checking: EFVS Landing			High
Checking: System Malfunction			High
Checking: Maneuver by Partial Panel			High
Checking: Unusual Attitude Recovery			High

Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include reducing AOA is the proper way to recover from a stall event. Pilots must accept that reducing the airplane’s AOA will normally result in altitude loss. The amount of altitude loss will be affected by the airplane’s operational environment (e.g., entry altitude, airplane weight, density altitude, bank angle, airplane configuration, etc.). At high altitudes, stall recovery will likely require losing several thousand feet.		High
Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include declaring an emergency if necessary. Do not delay recovery due to degrading airspeed or a stall event to obtain air traffic control (ATC) clearance to a lower altitude.		High

Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include understanding that early recognition and return of the airplane to a controlled and safe state are the most important factors in surviving stall events. Only after recovering to a safe maneuvering speed and AOA should the pilot focus on establishing an assigned heading, altitude, and airspeed.		High
Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include an abrupt pitch-up or trim change can occur when the autopilot unexpectedly disconnects during a stall event. This dramatic pitch-up or trim change typically adds an unexpected physical challenge to the pilot when trying to reduce AOA. In some airplanes, this may be aggravated by an additional pitch up when the pilot increases thrust during stall recovery.		High

Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include secondary stall warnings are indicative of a pilot prioritizing minimum loss of altitude over proper stall recovery or flight control inputs that are too aggressive. In some airplanes, depending on AOA representations, it may be difficult to determine the point where the pitch can begin to be increased and a momentary secondary stall warning may be encountered. A secondary stall warning is acceptable as long as AOA is promptly reduced and the airplane’s limitations are not exceeded.		High

Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include air carriers should develop stall prevention evaluation strategies that are a direct reflection to the aircraft type. Between different aircraft types and variations of an aircraft type there is a broad range of available airspeed/AOA/energy information to the pilot. Therefore, an evaluation of a stall prevention with an attitude direction indicator (ADI) that has sufficient information to determine the flight envelope (pitch limit indicators, speed tape with low-speed awareness, airspeed trend needles) should be more stringent. Obviously with this expectation, the assumption is made that the air carrier's stall training prepares the pilot to interpret this information in low energy states. Conversely, a stall prevention evaluation of a pilot		High

	that has limited flight envelope information could allow momentary reactivations of the stall warning after the pilot has reduced the AOA to cease the stall warning and is attempting to return the aircraft to safe flight.		
Conduct Stall Prevention and Recovery	Can recognize how changes to factors such as weight, G loading, CG, bank angle, altitude, and icing affect the handling characteristics and stall speeds of the airplane.		High
Conduct Stall Prevention and Recovery	Can appreciate inappropriate use or inadequate monitoring of autoflight modes can be a contributing factor to a stall event. For example, climbing in vertical speed can lead to a stall event when pilots do not notice the airspeed		High

	reducing as the altitude increases; whereas, climbing in modes such as indicated airspeed or flight level change can protect against unnoticed deceleration in a climb.		
Conduct Stall Prevention and Recovery	Can recognize impending stall characteristics for the specific airplane, including buffeting of a severity that may make it difficult to read the instruments.		High
Conduct Stall Prevention and Recovery	Can recognize and review of AOA indicators (if installed) or interpretation of other representations of AOA such as pitch-limit indicators or speed display symbology that can assist in stall prevention.		High
Conduct Stall Prevention and Recovery	Can recognize noises associated with stick shakers, autopilot, and autothrottle/autothrust disconnect alarms can cause confusion in the cockpit.		High
Conduct Stall Prevention and Recovery	Can appreciate the effects of malfunctioning or deferred equipment on stall protection		High

	and stick pusher systems.		
Conduct Stall Prevention and Recovery	Can differentiate between high and low altitude stalls, pitch rate sensitivity of flight controls (due to lack of aerodynamic damping), and amount of altitude loss required for recovery.		High
Conduct Stall Prevention and Recovery	Can appreciate the altitude effects of thrust available for recovery, and lack of airflow through engines at high AOA (reinforces reduction of AOA must precede any increase of thrust).		High
Conduct Stall Prevention and Recovery	Can appreciate USING SURPRISE IN TRAINING. Surprise has been a factor in stall incidents and accidents. Although it may be difficult to create surprise in the training environment, if achieved, surprise events may provide a powerful lesson for the crew. The goal of using surprise in training is to provide the crew with a surprise experience to reinforce timely application of the		High

	effective recovery technique under potentially confusing circumstances. Considerable care should be used in surprise training to avoid a negative learning experience. Surprise should not be used during checking. Stall prevention training should incorporate event conditions and variables typical of an unintentional stall that are likely to result in surprise due to the unexpected stall development, presentation, and behavior.		
Conduct and Checking: Stall Prevention and Recovery	CHECKING CRITERIA. Checking of prevention, recognition, and recovery from an impending stall should be evaluated on the timely and proper response to the impending stall including effective use of available energy; the criteria should not focus on altitude loss. The check pilot should consider the variables present at the time of the impending stall and their effect on the		High

	recovery. Checking criteria are: • Prompt recognition of impending stall, • Correct application of the stall recovery procedure, and • Recovering without exceeding the airplane's limitations.		

SIM 7 (Optional) Learning Objectives

SIM 7 Briefing Items

Tasks	**Knowledge & Cognitive Learning Objectives**
Understand determining landing performance per AFM	Can explain the parameters and importance of a stabilized approach
Understand determining landing performance per AFM	Can explain the importance of accurate and timely assessments of landing distance
Understand determining landing performance per AFM	Can explain the origin and use of runway Declared Distances
Understand determining landing performance per AFM	Can identify and manage risks associated with runway overruns during the landing
Understand determining landing performance per AFM	Can explain the risks associated with tailwind landings and landings on contaminated runways
Understand determining landing performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining landing performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining landing performance per AFM	Can explain the airspeeds used during specific phases of flight

Understand determining landing performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Conduct after landing, parking and securing	Can explain parking, shutdown, securing, and postflight inspection.
Conduct Arrival Procedures	Can use standard Terminal Arrival (STAR) charts, U.S. Terminal Procedures Publications, and IFR Enroute High and Low Altitude Charts
Conduct Arrival Procedures	Can use a Flight Management System (FMS) or GPS to follow a STAR
Conduct Arrival Procedures	Can explain two-way radio communication failure procedures during an arrival
Conduct Arrival Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)
Conduct Arrival Procedures	Can explain reasons other than visibility that a go around may suddenly be required
Conduct Arrival Procedures	Can explain the characteristics of a pilot braking action report
Conduct Arrival Procedures	Can explain items to consider when a pilot braking action report is reliable
Conduct Before Takeoff Checks	Can explain the purpose of checking each item during before takeoff checks
Conduct Before Takeoff Checks	Can describe how to detect malfunctions
Conduct Before Takeoff Checks	Can ensure the aircraft is in safe operating condition
Conduct Before Takeoff Checks	Can explain deicing and anti-icing procedures
Conduct Before Takeoff Checks	Can describe how to conduct a proper pre-takeoff contamination check
Conduct Before Takeoff Checks	Can describe how adverse weather conditions effect takeoff performance (e.g., snow, ice, gusting crosswinds, low-visibility)
Conduct Before Takeoff Checks	Can give a before takeoff briefing
Conduct Departure Procedures	Can explain takeoff minimums

Conduct Departure Procedures	Can explain obstacle Departure Procedure (ODP), including Visual Climb over the Airport (VCOA) and Diverse Vector Area (Radar Vectors)
Conduct Departure Procedures	Can explain Standard Instrument Departures (SID), including RNAV departure
Conduct Departure Procedures	Can explain required climb gradients
Conduct Departure Procedures	Can explain U.S. Terminal Procedures Publications and En Route Charts
Conduct Departure Procedures	Can explain proper use of a Flight Management System (FMS) to follow a DP
Conduct Departure Procedures	Can explain pilot/controller responsibilities, communication procedures, and ATC services available to pilots
Conduct Departure Procedures	Can explain two-way radio communication failure procedures after takeoff
Conduct Departure Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)
Conduct Departure Procedures	Can explain communication failure procedures
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status
Conduct Visual Approach (VFR Procedures)	Can explain the visual approach procedure.
Conduct Taxi	Can explain the information available on an airport diagram, chart supplement and NOTAMS
Conduct Taxi	Can interpret taxi instructions including published taxi routes
Conduct Taxi	Can identify airport and runway markings, signs, and lights
Conduct Taxi	Can describe proper procedures for entering or crossing runways
Conduct Taxi	Can explain procedures for taxi on one engine
Conduct Taxi	Can explain the hazards of low visibility taxi operations

Conduct Taxi	Can describe appropriate aircraft lighting for day and night operations
Conduct Taxi	Can describe appropriate flight deck activities prior to taxi, including route planning, identifying the location of Hot Spots, and coordinating with crew
Conduct Taxi	Can identify The runway and taxiway characteristics concerning width, safety areas, obstacle free zones, markings, hold lines, signs, holding spots, runway slope, suitability of threshold crossing height (TCH), critical area protection, taxiway position markings, runway distance remaining markings, runway distance remaining signs, and LVO/SMGCS should be addressed.
Conduct Taxi	Can explain the definition of a runway incursion: Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
Conduct Taxi	Can explain why thorough planning for taxi operations is essential for a safe operation
Conduct Taxi	Can conduct briefing of the expected taxi route to include any hold short lines and runways to cross, hot spots, and any other potential conflicts. (Once taxi instructions are received, the pretaxi route should be reviewed and monitored. It is essential that any changes to the taxi route be understood by all crewmembers)
Conduct Taxi	Can identify critical locations on the taxi route, where verbal coordination between the PIC and the SIC is important to avoid a runway incursion. (e.g., hot spots/complex intersections, crossing intervening runways, entering and lining up on the runway for takeoff, and approaching and lining up on the runway for landing)

Conduct Taxi	Can conduct briefing of requirements and special considerations during low visibility operations such as: the low visibility taxi chart, if published for the airport
Conduct Taxi	Can maintain knowledge of the aircraft's precise position throughout the taxi operation and mentally calculate the next location on the route that will require increased attention (e.g., a turn onto another taxiway, an intersecting runway, or hot spots)
Conduct Taxi	Can interpret and use all visual aids, and signage and lighting on the airport surface
Conduct Taxi	Can write down complex taxi instructions or copy taxi instructions into the scratch pad of the CDU
Conduct Taxi	Can explain that before entering a runway for takeoff, the flightcrew should verbally coordinate to ensure correct flap setting, identification of the runway, compass heading, FMC entry, and receipt of the proper ATC clearance to use that runway
Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable
Understand Avionics and Communications - HUD	Can identify all HUD symbology
Understand Avionics and Communications - HUD	Can explain the FPV
Understand Avionics and Communications - HUD	Can explain non-conformal LDI
Understand Avionics and Communications - HUD	Can recognize unusual attitudes when using the HUD
Understand Avionics and Communications - HUD	Can describe crew coordination when using the HUD
Understand Avionics and Communications - HUD	Can describe crew briefings and callouts
Understand Avionics and Communications - HUD	Can describe duties of the pilot flying and pilot monitoring when using HUD
Understand Avionics and Communications - HUD	Can interpret HUD II symbology including caged FPV, non-conformal LDI, and unusual attitudes
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance

Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Accelerate-Stop Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely decisions in relation V_1
Understand determining accelerate-stop / accelerate-go distance per AFM	Can state the different causes of RTOs
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the difference between Takeoff Distance and Takeoff Run

Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the Balanced Field Concept
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain why V_1 can be no less than V_{MCG} nor can be no more than V_R
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.
Understand determining accelerate-stop / accelerate-go distance per AFM	Can conduct a complete takeoff briefing and explain its importance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely and correct decisions related to rejected takeoffs (RTO)
Understand determining climb performance per AFM	Can explain why OEI data may not ensure climb gradient compliance nor obstacle clearance
Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for "all engine" or "engine inoperative" missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around procedures, acceleration segments or transition following an engine failure between the specified "all-engine lateral flightpath" (or radar vectors) and any specified "engine-inoperative lateral flightpath," using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.
Understand determining climb performance per AFM	Can explain considerations for OEI departure development
Understand determining climb performance per AFM	Can state the definition of takeoff segment
Understand determining climb performance per AFM	Can state the definitions of gross and net flightpath
Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance

Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining climb performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators
Understand determining climb performance per AFM	Can locate FAA TALPA videos online
Understand determining climb performance per AFM	Can describe the segments of an instrument departure procedure
Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures
Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining descent performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance

Understand determining descent performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining descent performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining descent performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining fuel requirements per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining fuel requirements per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining fuel requirements per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining performance with an inoperative powerplant for all phases of flight per AFM - Engine Failure Considerations procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define declared runway distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define landing distance available
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define actual landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can interpret and make proper runway condition reports
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "adjusted landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "unfactored (certified) landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "factored landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the point at which landing configuration should be established in a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe a stabilized approach profile for both VMC and IMC conditions
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of a stabilized descent rate
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of indicated airspeed during a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that ATP criteria for touchdown point is the aiming point markings - 250/+500 feet, or where there are no runway aiming point markings 750 to 1,500 feet from the approach threshold of the runway.
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the effect of downhill runway slope on required landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the impact of excess airspeed on landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the purpose and variables involved in a landing performance assessment at time of arrival

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the effect of wind on landing performance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can identify critical condition combinations that increase risk of a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain proper landing and braking technique
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the difference between AFM dry, certified/approved data and advisory/supplemental data
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can discuss the chain of events that lead to an overrun in this example, and relate it to their own experiences
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can reference applicable regulations for preflight planning
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can calculate the required effective landing distance for dispatch under part 91 and part 135 operations
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the Can U StoP process
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that factors affecting landing distance are cumulative, and why multiple small errors during landing can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how an unstabilized approach can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how high airport elevation can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excess airspeed can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how airplane landing weight can contribute to an aircraft overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing beyond the intended touchdown point can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how downhill runway slope can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excessive height over the runway threshold can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how delayed use of deceleration/maximum breaking can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing with a tailwind can contribute to a runway overrun

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain predeparture planning versus runway condition at time of arrival
Conduct LOFT (Optional Simulator Session 7)	Can demonstrate the observable behaviors classified under the ICAO Application of Knowledge Competency
Conduct LOFT (Optional Simulator Session 7)	Can interpret NOTAMs and other aeronautical information (AI) to be addressed includes facility status, proper interpretation of outage reports for lighting components, standby power, or other factors and proper application of NOTAMs regarding the initiation of AWO operations.

SIM 7 Tasks and Expectations

Tasks	**Motor Skill Learning Objectives**	**Attitude Learning Objectives**	**Task Expectation Rating**
Understand determining landing performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance	High

		and actual performance	
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Conduct after landing, parking and securing	Can demonstrate runway incursion avoidance procedures.		High
Conduct after landing, parking and securing	Can comply with ATC instructions and perform radio calls as appropriate.		High
Conduct after landing, parking and securing	Can coordinate with crew, if applicable, and execute the appropriate checklist(s) after clearing the runway.		High
Conduct after landing, parking and securing	Can perform parking in the appropriate area, considering the safety of nearby persons and property.		High
Conduct after landing, parking and securing	Can execute a postflight inspection and document discrepancies and servicing requirements, if any.		High

Conduct after landing, parking and securing	Can perform securing the airplane.		High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing propeller, turbofan inlet, and exhaust safety.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing airport specific security procedures.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing disembarking passengers.	High
Conduct Arrival Procedures		Can manage the risk of errors when assigned a STAR and subsequently receives a change of	High

		landing runway, procedure or transition by verifying the appropriate changes are entered and available for navigation	
Conduct Arrival Procedures	Can select, identify and use the appropriate communication and navigation facilities associated with the arrival		High
Conduct Arrival Procedures	Can perform setup of FMS and avionics to include flight director and autopilot controls for the arrival, if applicable		High
Conduct Arrival Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		High
Conduct Arrival Procedures	Can initiate two-way communications with the proper controlling agency		High
Conduct Arrival Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		High
Conduct Arrival Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		High

Conduct Arrival Procedures	Can comply with all applicable charted procedures		High
Conduct Arrival Procedures	Can comply with airspeed restrictions required by regulation, procedure, aircraft limitation or ATC		High
Conduct Arrival Procedures	Can maintain rate of descent consistent with the route segment, airplane operating characteristics and safety		High
Conduct Arrival Procedures	Can maintain the appropriate airspeed/V-speed ±10 knots, but not less than VRef if applicable, heading ±10°, altitude ±100 feet, and accurately track radials, courses, and bearings		High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures.	High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to recognize limitations of traffic avoidance equipment.	High

Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to use see and avoid techniques when possible.	High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing improper automation management.	High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing ATC instructions that modify an arrival or discontinue/resume the aircraft’s lateral or vertical navigation on an arrival.	High
Conduct Before Takeoff Checks		Can manage the risk of errors when assigned an RNAV DP and subsequently receives a change of runway, procedure or transition by verifying the appropriate changes are entered and available for	High

		navigation prior to takeoff.	
Conduct Before Takeoff Checks	Can determine the airplane's takeoff performance for actual conditions and planned departure runway		High
Conduct Before Takeoff Checks	Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		High
Conduct Before Takeoff Checks	Can confirm all systems checked are within an acceptable operating range and are safe for the proposed flight		High
Conduct Before Takeoff Checks	Can explain any system operating characteristic or limitation and any corrective action for a malfunction during the checks		High
Conduct Before Takeoff Checks	Can determine airspeeds/V-speeds and set flight instruments appropriately		High
Conduct Before Takeoff Checks	Can use flight director and autopilot controls for the current flight conditions and takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can perform configuration of navigation equipment		High

	for takeoff and departure clearances		
Conduct Before Takeoff Checks	Can configure communication equipment for takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can obtain and correctly interpret the takeoff and departure clearance		High
Conduct Before Takeoff Checks	Can conduct a briefing that includes procedures for emergency and abnormal situations (e.g., powerplant failure, windshear), which may be encountered during takeoff, and state the planned action if they were to occur		High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing division of attention while conducting before takeoff checks	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing an unexpected change in the runway to be used for departure	High

Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to verify performance data is correct and airspeeds and flight instruments are set for actual conditions and the departure runway	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to set navigation and communication equipment for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to configure autopilot and flight director controls for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to account for adverse weather conditions prior to takeoff (e.g., snow, ice, gusting	High

		crosswinds, low-visibility)	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing A powerplant failure during takeoff or other malfunction considering operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	High
Conduct Departure Procedures	Can select the appropriate instrument departure procedure.		High
Conduct Departure Procedures	Can select, identify and use the appropriate communication facilities associated with the procedure		High
Conduct Departure Procedures	Can select, identify and use the appropriate navigation facilities associated with the procedure		High

Conduct Departure Procedures	Can perform programming the FMS prior to departure and execute avionics setup of flight director and autopilot controls for the departure		High
Conduct Departure Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		High
Conduct Departure Procedures	Can initiate two-way communications with the proper controlling agency		High
Conduct Departure Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		High
Conduct Departure Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		High
Conduct Departure Procedures	Can comply with all applicable charted procedures		High
Conduct Departure Procedures	Can maintain the appropriate airspeed ±10 knots, headings ±10°, and altitude ±100 feet, and accurately track a course, radial, or bearing		High
Conduct Departure Procedures	Can execute the departure phase to a point where the transition to the en route environment is complete		High

Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures and required climb gradients	High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing limitations of air traffic avoidance equipment and use of see and avoid techniques	High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing improper automation management	High
Conduct Visual Approach (VFR Procedures)	Can conduct a visual approach.		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify currency and integrity of aircraft navigation data		High
Conduct RNP operations in the United States, oceanic and remote continental	Can obtain a receiver autonomous integrity monitoring (RAIM) prediction for the		High

airspace, and in foreign countries which adopt ICAO standards for RNP operations.	planned RNP operation		
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify successful completion of RNP system self-tests;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform initialization navigation system position		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform retrieval of an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can execute an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform adherence to speed and/or altitude constraints associated with RNP operations		High

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can select the appropriate STAR or SID for the active runway in use and be familiar with procedures to deal with a runway change		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify waypoints and flight plan programming;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform a manual or automatic runway update (with takeoff point shift for Inertial Reference Units (IRU) only);		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying direct to a waypoint		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying a course/track to a waypoint		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign	Can perform interception of a course/track		High

countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform selecting/arming the navigation system for an ILS or GLS transition		High
Conduct Taxi	Low visibility taxi and ground operations should be trained to the extent practical and beneficial. Such training should address operations at typical airports or alternately, at airports frequently experiencing low-visibility conditions, complex airports on the operator's route system, airports with particular low visibility ground movement difficulties, or rarely used but significant contingency airports, as determined appropriate by the operator.		High
Conduct Taxi	perform either PF or PM duties, unless otherwise limited by the operator's policies or aircraft characteristics (e.g., single HUD).		High
Conduct Taxi	Can record taxi instructions, respond		High

	to taxi clearances, and review taxi routes on the airport diagram.		
Conduct Taxi	Can use an airport diagram or taxi chart during taxi		High
Conduct Taxi	Can comply with ATC clearances and instructions and observe all runway hold lines, ILS critical areas, beacons, and other airport/taxiway markings and lighting		High
Conduct Taxi	Can coordinate with crew, if applicable, and complete the appropriate checklist(s) prior to and during taxi		High
Conduct Taxi	Can maintain situational awareness during taxi		High
Conduct Taxi	Can maintain correct and positive airplane control, proper speed, appropriate use of wheel brakes and reverse thrust		High
Conduct Taxi	Can maintain separation between other aircraft, vehicles, and persons to avoid an incursion/incident/accident		High
Conduct Taxi	Can use aircraft exterior lighting for day and night operations		High
Conduct Taxi		Can identify, assess, and manage risks, encompassing inappropriate	High

		activities and distractions	
Conduct Taxi		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing a taxi route or departure runway change	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing low visibility taxi operations	High
Conduct Taxi		Can conduct a briefing on the timing and execution of aircraft checklists and company communications at the appropriate times and locations, ensuring the pilot who is not	High

		taxiing the aircraft can be available to participate in verbal coordination with the pilot who is taxiing the aircraft	
Conduct Taxi		Can consider the anticipated duration of the taxi operation, the locations of hot spots/complex intersections and runway crossings, and the visibility along the taxi route when briefing tasks or accomplishing checklists	High
Conduct Taxi		Can manage pilot workload and heads-down time during taxi by conducting predeparture checklists, including setting the takeoff flap setting, when the aircraft is stopped or while taxiing straight ahead on a taxiway without complex intersections and hot spots	High

Conduct Taxi		Can maintain a sterile cockpit during taxi operations	High
Conduct Taxi	Can use airport diagram to follow progress of the taxi operation		High
Conduct Taxi		Can manage the risk of expectation bias, and follow the clearance or instructions that are actually received, and not the ones they expected to receive.	High
Conduct Taxi		Can be alert to ATC instructions to hold short of an ILS critical area holding line.	High
Conduct Taxi		Can monitor the aircraft's progress on the airport diagram to ensure that the pilot taxiing the aircraft is following the instructions received from the ATC while maintaining outside vigilance	High
Conduct Taxi		Can determine whether or not to accept last-minute turnoff instructions from ATC,	High

		refusing such clearance unless the crew clearly understands the instructions and are certain that they can safely comply.	
Conduct Taxi		Can respond to all hold short instructions, and verifies with other crew members or ATC to ensure agreement and understanding	High
Conduct Taxi	Can execute bringing the aircraft to a complete stop, or be in a phase of taxiing that has no risk of a runway incursion before continuing with operational duties and checklists		High
Conduct Taxi		Can comply with hold short or crossing clearance when approaching an entrance to a runway.	High
Conduct Taxi		Can explain or demonstrate proper actions if the crew becomes disoriented: never stop on a runway, and initiate communications with ATC to	High

		regain orientation.	
Conduct Taxi		Can demonstrate vigilance when instructed to taxi and “Line Up and Wait”. Turns Traffic Alert and Collision Avoidance System (TCAS)/traffic advisory systems (TAS) on in order obtain awareness of any aircraft that may be landing on your runway.	High
Conduct Taxi		Can resolve all misunderstandings or disagreements regarding taxi clearance to the satisfaction of all flightcrew members before taxiing the aircraft.	High
Conduct Taxi	Can apply use of the airport diagram after receiving a clearance, and confirms and verbalizes the assigned runway and taxi route, including any instructions to hold short of, or cross, a runway. If there is any doubt, speaks up and		High

	resolve the uncertainty before taxi		
Conduct Taxi		Can coordinate with other flightcrew member(s) if stopping and resuming the monitoring of the ATC frequency, for example when it becomes necessary for a flightcrew member to stop monitoring any ATC frequency to prepare the aircraft for takeoff or landing.	High
Conduct Taxi		Can assess any upcoming hold short instructions or clearances that could be misinterpreted prior to stopping and after resuming monitoring of the taxi. An example may include: “I’m heads-down, right turn ahead at Alpha,” or “I’m back, any changes?”	High

Conduct Taxi		Can appreciate that time away from monitoring ATC should be avoided with complex taxi routing or crossing of runways. Any instructions or information received or transmitted during that flightcrew member's absence from the ATC frequency should be reviewed and confirmed upon his or her return.	High
Conduct Taxi		Can coordinate verbally at complex intersections to be sure that: the intersection is correctly identified and confirmed using the airport diagram and the heading indicator	High
Conduct Taxi		Can state "approaching (specific runway number) hold short line. Before crossing any hold short line, the	High

		flightcrew should visually scan to the left and to the right, including the full length of the runway and its approach paths, and coordinate verbally (e.g., “clear right/left” or that the scan area is not clear).	
Conduct Taxi		Can coordinate verbally and agree on the runway assigned by ATC, the upcoming assigned exit, and any restrictions, such as hold short points of an intersecting runway and the aircraft’s parking area after landing	High
Conduct Taxi	Can execute turning on the rotating beacon whenever an engine is running		High
Conduct Taxi	Can execute turning on navigation, position, anti-collision, and logo lights, if available, to signal intent to other pilots prior to commencing taxi		High

Conduct Taxi	Can execute turning on the taxi light when the aircraft is moving or intending to move on the ground, and turning it off when stopped or yielding or as a consideration to other pilots or ground personnel		High
Conduct Taxi	Can execute illuminating all lights when crossing a runway when appropriate		High
Conduct Taxi		Can consider any adverse effects to safety that illuminating the forward-facing lights will have on the vision of other pilots or ground personnel during runway crossings, and adjust operation accordingly	High
Conduct use of FMS	Can perform use of the automatic throttle, flight management computer, or other speed management system, if applicable.		High
Conduct use of FMS		Can manage the risk of errors when receiving a change to assigned routing by ensuring the waypoints sequence depicted by their navigation	High

		system matches the route depicted on the appropriate chart(s) and their assigned route	
Conduct use of FMS	Can verify currency of aircraft navigation data.		High
Conduct use of FMS	Can perform flying a course/track to a waypoint.		High
Conduct use of FMS	Can perform interception of a course/track		High
Conduct use of FMS	Can comply with a vectored off and execute rejoining a procedure.		High
Conduct use of FMS	Can determine cross-track error/deviation		High
Conduct use of FMS	Can execute insertion and deletion of a route discontinuity		High
Conduct use of FMS	Can execute insertion and delete a holding pattern		High
Conduct use of FMS	Can verify successful completion of RNAV system self-tests		High
Conduct use of FMS	Can execute initialization of RNAV system position		High
Conduct use of FMS	Can execute retrieval and flying of a DP or STAR with appropriate transition		High
Conduct use of FMS	Can comply with speed and/or altitude constraints associated with a DP or STAR.		High
Conduct use of FMS	Can execute making a runway change		High

	associated with a DP or STAR		
Conduct use of FMS	Can verify waypoints and flight plan programming		High
Conduct use of FMS	Can perform flying direct to a waypoint		High
Conduct use of FMS	Can perform a complex SID consisting of multiple altitude and speed constraints		High
Conduct use of FMS	Can perform a complex STAR consisting of multiple altitude and speed constraints		High
Conduct use of FMS	Can demonstrate general awareness of all three styles of flight director		High
Conduct use of FMS	Can identify symbology available in synthetic vision system		High
Conduct use of FMS	Can differentiate between conformal and non-conformal scaling in the HUD and synthetic vision		High
Conduct use of HUD	Conduct takeoff and departure using HUD to ATP ACS standards		High
Conduct use of HUD	Conduct approach and landing using HUD to ATP ACS standards		High
Conduct use of HUD	Can use caged, uncaged and clear modes in crosswind conditions		High
Conduct use of HUD	Can relate glidepath angle to the symbolic runway.		High

Conduct use of HUD	Can use the flare symbol as a cue in the Honeywell HUD Model 2020 and as guidance in the HUD II.		High
Conduct use of PlaneView System, if applicable	Can perform use of the PlaneView system installed in the full flight training equipment		High
Conduct use of TCAS	Can demonstrate the proper use of controls including aircraft configuration required to initiate a self-test.		High
Conduct use of TCAS	Can demonstrate the proper use of controls including steps required to initiate a self-test.		High
Conduct use of TCAS	Can demonstrate the proper use of controls including recognizing when the self-test was successful and when it was unsuccessful. When the self-test is unsuccessful, recognizing the reason for the failure, and if possible, correcting the problem.		High
Conduct use of TCAS	Can perform the procedures specified in AC120-55C		High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High

Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High

Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can appreciate that take off distance numbers provided by the AFM are the most restrictive result of	High

		numerous part 25 requirements	
Understand determining climb performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and runway excursions	High
Understand determining cruise performance (e.g., optimum and		Can explain the adverse effects of exceeding an	High

maximum operating altitudes) per AFM		airplane limitation or the airplane operating envelope.	
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining descent performance per AFM		Can explain the adverse effects of exceeding an airplane	High

		limitation or the airplane operating envelope.	
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining fuel requirements per AFM		Can explain the adverse effects of exceeding an airplane limitation or the	High

		airplane operating envelope.	
Understand determining fuel requirements per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance	High

		and stall warning, and Runway excursions	
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining weight and balance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining weight and balance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand OEM checklist philosophy		Can appreciate that while there are no defined memory items in the AFM, pilots should still be familiar enough with the aircraft to be able to perform initial and critical items without first referencing associated documentation. In addition, pilots are expected to don	High

		oxygen masks promptly when appropriate (e.g., when smoke is detected).	
Understand OEM checklist philosophy		Can appreciate that abnormal and emergency procedures are presented in quick reference handbooks (QRH) of an identical format for all three aircraft. Although some individual steps may differ or use different acronyms, these steps are carried out under the guidance of the handbook in a logical decision-making manner	High
Conduct LOFT (Optional Simulator Session 7)	Can demonstrate the observable behaviors classified under the ICAO Application of Procedures Competency		High
Conduct LOFT (Optional Simulator Session 7)		Can demonstrate the observable behaviors classified under the ICAO Communication Competency	High

Conduct LOFT (Optional Simulator Session 7)	Can demonstrate the observable behaviors classified under the ICAO Flight Path Management - Automation Competency		High
Conduct LOFT (Optional Simulator Session 7)	Can demonstrate the observable behaviors classified under the ICAO Flight Path Management - Manual Control Competency		High
Conduct LOFT (Optional Simulator Session 7)		Can demonstrate the observable behaviors classified under the ICAO Leadership and Teamwork Competency	High
Conduct LOFT (Optional Simulator Session 7)		Can demonstrate the observable behaviors classified under the ICAO Problem Solving and Decision-Making Competency	High
Conduct LOFT (Optional Simulator Session 7)		Can demonstrate the observable behaviors classified under the ICAO Situational Awareness and Management of Information Competency	High

Conduct LOFT (Optional Simulator Session 7)		Can demonstrate the observable behaviors classified under the ICAO Workload Management Competency	High

G-V Standardized Curriculum Course 2 Learning Objectives

Table of Contents

Course 2 Overview				
Day 1	**Planned Hours**	**Ground**	**Systems Integration**	
Aircraft Manuals	0.25	8.0	0.0	
MEL and CDL	0.25			
CRM	1.00			
Aircraft General	0.75			
Weight and Balance	1.00			
Flight Planning and Performance	1.00			
Flight Profiles and Maneuvers	0.50			
Avionics and Communications	1.50			
Windshear	0.25			
Lighting	0.25			
Auxiliary Power Unit	0.25			
Electrical System	1.00			
Day 2	**Planned Hours**	**Ground**	**Systems Integration**	
Avionics and Communications	0.50	8.0	0.0	
Powerplant	1.00			
Oil System	0.25			
Thrust Reverse	0.50			
Fuel System	0.50			
Hydraulic System	0.50			
Landing Gear and Brakes	0.50			
Fire and Smoke Detection, Protection and Suppression	0.50			
Flight Controls	0.75			
Pneumatic and Environmental Systems	1.50			
Pitot-static System	0.25			
Ice Protection	0.50			
Oxygen	0.25			
Ground School Completion Exam	0.50			
Simulator Session 1		**Brief**	**Crew**	**Single**
Preflight Inspection (Cockpit)		2.0	4.0	4.0
Powerplant Start - Normal				
Use of Checklists				
Taxiing/Runway Operations				
Before Takeoff Checks				
Normal Takeoff and Climb				
Windshear on Takeoff				
Departure Procedure				

Steep Turns			
Stall Prevention, Clean Configuration - Low Altitude			
Stall Prevention, Partial Flap Configuration			
Stall Prevention, Landing Configuration			
Stick Pusher Demonstration			
Recovery from Nose Low Attitudes			
Recovery from Nose High Attitudes			
Arrival Procedures			
Precision Approach			
Precision Approach - Backup Instrumentation			
Missed Approach from a Precision Approach			
Normal Approach and Landing			
Landing from a Precision Approach			
Windshear on Landing			
Go-around/Rejected Landing			
Normal/Abnormal/Emergency Procedures/Operations: Radios, Nav Equipment, Instruments, FMS			
Normal/Abnormal/Emergency Procedures/Operations: Ground Proximity Warning System, WX Radar, Radio Altimeter, Transponder			
Normal/Abnormal/Emergency Procedures/Operations: Stall Warning/Avoidance Devices			
After Landing Procedures			
Parking and Securing			
Simulator Session 2	**Brief**	**Crew**	**Single**
Powerplant Start - Normal	2.0	4.0	4.0
Powerplant Start - Abnormal			
Use of Checklists			
Taxiing/Runway Operations			
Before Takeoff Checks			
Crosswind Takeoff			
Departure Procedure			
TCAS (Collision Avoidance Maneuver)			
Powerplant Failure (Including Shutdown/Restart)			
Procedures and Maneuvering with an Engine Out while executing the duties of a Pilot-in-Command (SIC Only)			
Holding			
Nonprecision Approach			
Nonprecision Approach - Manually Flown with Course Reversal			

Circling Approach			
Visual Approach			
Published Missed Approach			
Crosswind Landing			
Landing From a Circling Approach			
Landing from a No Flap or Nonstandard Flap Approach			
Normal/Abnormal/Emergency Procedures/Operations: Powerplant			
Normal/Abnormal/Emergency Procedures/Operations: Auxiliary Power Unit (APU)			
Normal/Abnormal/Emergency Procedures/Operations: Electrical System			
Normal/Abnormal/Emergency Procedures/Operations: Autopilot/Flight Director			
Normal/Abnormal/Emergency Procedures/Operations: Flap System			
Normal/Abnormal/Emergency Procedures/Operations: Flight Control System			
Normal/Abnormal/Emergency Procedures/Operations: Smoke Control/Removal			
Normal/Abnormal/Emergency Procedures/Operations: Hydraulic System			
Normal/Abnormal/Emergency Procedures/Operations: Landing Gear and Brakes			
Normal/Abnormal/Emergency Procedures/Operations: Fuel System			
Simulator Session 3	**Brief**	**Crew**	**Single**
Taxiing/Runway Operations	2.0	4.0	4.0
Before Takeoff Checks			
Instrument Takeoff			
Rejected Takeoff			
Powerplant Failure During Takeoff			
Departure Procedure			
Stall Prevention, Clean Configuration - High Altitude			
Stall Recovery with Idle Thrust			
Powerplant Failure (Including Shutdown/Restart)			
Arrival Procedures			
Precision Approach			
Precision Approach, One Engine Inoperative - Manually Flown			
Nonprecision Approach - Backup Instrumentation			

Nonprecision Approach - Manually Flown with Course Reversal			
Missed Approach with One Engine Inoperative			
Crosswind Landing			
Landing from a Precision Approach			
Approach and Landing with a Powerplant Failure			
Normal/Abnormal/Emergency Procedures/Operations: Powerplant			
Normal/Abnormal/Emergency Procedures/Operations: Radios, Nav Equipment, Instruments, FMS			
Normal/Abnormal/Emergency Procedures/Operations: Autopilot/Flight Director			
Normal/Abnormal/Emergency Procedures/Operations: In-flight Fire Drills			
Normal/Abnormal/Emergency Procedures/Operations: Pitot-Static System			
Normal/Abnormal/Emergency Procedures/Operations: Environmental/Air Conditioning System			
Normal/Abnormal/Emergency Procedures/Operations: Pressurization System			
Normal/Abnormal/Emergency Procedures/Operations: Decompression			
Normal/Abnormal/Emergency Procedures/Operations: Emergency Descent (Maximum Rate)			
Normal/Abnormal/Emergency Procedures/Operations: Emergency Evacuation			
Normal/Abnormal/Emergency Procedures/Operations: Anti-ice and Deice Systems			
Normal/Abnormal/Emergency Procedures/Operations: Airframe Icing			

Ground School Learning Objectives

Day 1 Ground School Learning Objectives

Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Aircraft Manuals	Understand Auxiliary Power Unit (APU)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that AFM guidelines supersede all other information
Aircraft Manuals	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - autopilot	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - communication	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

	systems (e.g., data link, UHF/VHF/HF, satellite)	
Aircraft Manuals	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - emergency locator transmitter.	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Flight Management System (FMS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - ground-based navigation systems and components	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - indicating devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Radar	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - transponder	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Emergency Equipment - emergency exits	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Equipment - oxygen system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Equipment - passenger oxygen system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - circuit breakers and protection devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - controls	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - generators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - batteries	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Envelope protection—angle of attack warning and protection and speed protection	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

	suppression - lavatory	
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - powerplant	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - elevator	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - flaps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - rudder	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - speed brakes	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - spoilers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - Ailerons	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - trim systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - additives	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - capacity and quantities	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - controls and indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Fuel system - cross-feeding	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - drains	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - fuel grade	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - fuel substitutions	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - fueling and defueling procedures	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - pumps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - transferring	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - allowable types of fluid	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - capacity	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - pressure	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - pumps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - regulators/accumulators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - reservoirs	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Ice Protection - anti-ice & de-ice.	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Ice Protection - pitot-static system protection	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Ice Protection airfoil surfaces	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Ice Protection windshield	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - antiskid	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - brakes	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - extension/retraction system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - nosewheel steering	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - shock absorbers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - tires	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Lighting	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pitot Static System - associated instruments and the power source for	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

	those flight instruments	
Aircraft Manuals	Understand Pitot Static System - Operation and power sources for other flight instruments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pneumatic and environmental system - pressurization	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pneumatic and environmental system - supply for ice protection systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - turbine wheels	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - allowable types of oil	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - compressors	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - controls and indications	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Powerplant - deicing, anti-icing	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - oil system capacity and quantities	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - thrust reverse	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
MEL and CDL	Understand Auxiliary Power Unit (APU)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - autopilot	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - emergency locator transmitter.	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Flight Management System (FMS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - ground-based navigation systems and components	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - indicating devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Radar	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - terrain	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

	awareness/warning/ alert systems	
MEL and CDL	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - transponder	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Crew and Passenger Emergency Equipment - emergency exits	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Crew and Passenger Equipment - oxygen system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Crew and Passenger Equipment - passenger oxygen system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - circuit breakers and protection devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - controls	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - generators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Envelope protection—angle of attack warning and protection and speed protection	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

	suppression - lavatory	
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - powerplant	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - elevator	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - flaps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - rudder	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - speed brakes	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - spoilers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - Ailerons	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - trim systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Fuel system - additives	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - capacity and quantities	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - controls and indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - cross-feeding	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - drains	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - fuel grade	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - fuel substitutions	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - fueling and defueling procedures	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - pumps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - transferring	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - allowable types of fluid	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Hydraulic system - capacity	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - pressure	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - pumps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - regulators/accumulators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - reservoirs	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection - anti-ice & de-ice.	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection - pitot-static system protection	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection airfoil surfaces	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection windshield	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - antiskid	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - brakes	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Landing Gear - extension/retraction system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - nosewheel steering	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - shock absorbers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - tires	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Lighting	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pitot Static System - Operation and power sources for other flight instruments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pneumatic and environmental system - pressurization	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pneumatic and environmental system - supply for ice protection systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - turbine wheels	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - allowable types of oil	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - compressors	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - controls and indications	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - deicing, anti-icing	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - oil system capacity and quantities	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - thrust reverse	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Course 2	Tasks	Knowledge & Cognitive Learning Objectives
CRM	Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the characteristics of effective CRM
CRM	Understand Crew Resource Management (CRM)	Can evaluate the authority of the pilot in command;
CRM	Understand Crew Resource Management (CRM)	Can discuss communication processes, decisions, and coordination, to include communication with Air Traffic Control, personnel performing flight locating and other operational functions, and passengers;
CRM	Understand Crew Resource Management (CRM)	Can manage building and maintenance of a flight team;
CRM	Understand Crew Resource Management (CRM)	Can discuss workload and time management;
CRM	Understand Crew Resource Management (CRM)	Ensure situational awareness;
CRM	Understand Crew Resource Management (CRM)	Can appreciate the effects of fatigue on performance, avoidance strategies and countermeasures;
CRM	Understand Crew Resource Management (CRM)	Can appreciate th effects of stress and stress reduction strategies
CRM	Understand Crew Resource Management (CRM)	Can determine aeronautical decision-making and judgment training tailored to the operator's flight operations and aviation environment.
CRM	Understand Crew Resource Management (CRM)	Can explain the airplane pilot competency framework and associated observable behaviors
CRM	Understand Crew Resource	Can relate the airplaine pilot competency framework to threat and error management

	Management (CRM)	
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can describe the operation of the airplane systems and components using correct terminology
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can explain immediate action items or memory items, if appropriate
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand Crew and Passenger Emergency Equipment - survival gear	Can explain the location, purpose and operation of emergency equipment in the aircraft
Aircraft General	Understand evacuation procedures and crew duties - Cabin Window Cracked procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand evacuation procedures and crew duties - Ditching procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand evacuation procedures and crew duties - External Baggage Door Not Secure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Aircraft General	Understand evacuation procedures and crew duties - Main Entrance Door Not Secure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand evacuation procedures and crew duties - Planned Airplane Evacuation procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand Specific Flight Characteristics	Can describe Any aircraft characteristics relevant to all weather operations, such as flight deck visibility cutoff angles and the effect on flight deck visibility of proper eye height, seat position or instrument lighting intensities related to transition through areas of varying brightness levels. Pilots should be aware of the effects on flight visibility related to use of different flap settings, approach speeds, use of various landing or taxi lights, and proper procedures for use of windshield wipers and rain repellent. If windshield defog, anti-ice, or de-icing systems affect forward visibility, pilots should be aware of those effects and be familiar with proper settings for use of that equipment related to low-visibility landing.
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Weight and Balance	Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable
Weight and Balance	Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Weight and Balance	Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Flight Planning and	Understand determining landing performance per AFM	Can explain the importance of accurate and timely assessments of landing distance

Performance		
Flight Planning and Performance	Understand determining landing performance per AFM	Can identify and manage risks associated with runway overruns during the landing
Flight Planning and Performance	Understand determining landing performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining landing performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining landing performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Conduct Rejected Takeoff	Can define relevant V-speeds for a rejected takeoff
Flight Planning and Performance	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that ODPs are recommended for obstruction clearance and may be flown without ATC clearance unless an alternate DP (SID or radar vector) has been specifically assigned by ATC.
Flight Planning and Performance	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe the meaning and proper use of aircraft equipment/navigation capability codes used on the flight plan

Flight Planning and Performance	Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed
Flight Planning	Understand determining	Can explain the difference between Takeoff Distance and Takeoff Run

and Performance	accelerate-stop / accelerate-go distance per AFM	
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain why V_1 can be no less than V_{MCG} nor can be no more than V_R
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.
Flight Planning and Performance	Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for "all engine" or "engine inoperative" missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around procedures, acceleration segments or transition following an engine failure between the specified "all-engine lateral flightpath" (or radar vectors) and any specified "engine-inoperative lateral flightpath," using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.
Flight Planning and	Understand determining climb performance per AFM	Can explain considerations for OEI departure development

Performance		
Flight Planning and Performance	Understand determining climb performance per AFM	Can state the definition of takeoff segment
Flight Planning and Performance	Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators
Flight Planning and Performance	Understand determining climb performance per AFM	Can describe the segments of an instrument departure procedure
Flight Planning and Performance	Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures
Flight Planning and Performance	Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance

Flight Planning and Performance	Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining descent performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining descent performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining descent performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining fuel requirements per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining fuel requirements per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining fuel requirements per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and	Understand determining performance with	Can explain and demonstrate the use of charts, tables, and data to determine performance

Performan ce	an inoperative powerplant for all phases of flight per AFM	
Flight Planning and Performan ce	Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performan ce	Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performan ce	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define declared runway distance
Flight Planning and Performan ce	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define landing distance available
Flight Planning and Performan ce	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define actual landing distance
Flight Planning and Performan ce	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "adjusted landing distance"
Flight Planning and Performan ce	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "unfactored (certified) landing distance"
Flight Planning	Understand Mitigating Risks of	Can define "factored landing distance"

and Performance	a Runway Overrun Upon Landing	
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can identify critical condition combinations that increase risk of a runway overrun
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can reference applicable regulations for preflight planning
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can calculate the required effective landing distance for dispatch under part 91 and part 135 operations
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that factors affecting landing distance are cumulative, and why multiple small errors during landing can contribute to a runway overrun
Flight Planning and Performance	Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).	Can explain and demonstrate the use of charts, tables, and data to determine performance
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Flight Profiles and Maneuvers	Understand determining landing performance per AFM	Can explain the parameters and importance of a stabilized approach

Flight Profiles and Maneuvers	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely decisions in relation V_1
Flight Profiles and Maneuvers	Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of a stabilized descent rate
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Recognition of impending stall indications and understanding of the need to initiate the stall recovery procedure at an impending stall.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Recognition of full stall indication (see paragraph 1-7) with the realization that most swept-wing transport category aircraft exhibit full stall characteristics different from those typically experienced in General Aviation (GA) aircraft used during certification training.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: For airplanes equipped with a stick pusher, recommended recovery actions in response to stick pusher activation.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Avoiding cyclical or oscillatory control inputs to prevent exceeding the structural limits of the airplane.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Structural considerations, including explanation of limit load, ultimate load, and the dangers of combining accelerative and rolling moments (i.e., the rolling pull) during recovery.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: The necessity for smooth, deliberate, and positive control inputs to avoid unacceptable load factors and secondary stalls.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: AOA must be reduced prior to controlling roll.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Effectiveness of control surfaces and the order in which the control surfaces lose and regain their effectiveness (e.g., spoilers, ailerons, etc.).

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: If a terrain awareness warning system (TAWS) warning is encountered during recovery from a low altitude stall event, recovery from the stall warning should take precedence. Once the airplane recovers from the stall event, then execute the TAWS escape maneuver.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: AOA versus pitch angle.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Rate of onset including rate of airspeed decay (both low and high).
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Airplane configuration and condition including weight, center of gravity (CG), landing gear, flaps/slats, spoilers/speed brakes, etc.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Asymmetric loading including thrust asymmetries, wing loading due to roll or yaw transients or uncoordinated flight.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: G loading.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Bank angle.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Thrust and lift vectors.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Thrust required versus thrust available.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Wind shear.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Altitude.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Mach effects.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Situational Awareness.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Mode confusion, including unexpected/unannounced mode changes.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Unexpected transition from automated to manual flight.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Contamination (ice), including the effect of icing on stall speed and stall warnings.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can demonstrate an understanding of AOA indicators (if installed) or interpretation of other representations of AOA such as pitch-limit indicators or speed display symbology that can assist in stall prevention.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain specific stall and low-speed buffet characteristics unique to the airplane type and any implications for the expected flight operations and airplane-specific stall recovery procedure (e.g., underwing mounted engines, t-tail, propellers, etc.).
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can describe thrust settings and its application.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can describe autothrottle/autothrust protection.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can demonstrate awareness of autoflight mode indications.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain incorrect use of (including input errors) flightpath automated systems.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the operation and function of stall protection systems in normal, abnormal, and emergency situations, including the hazards of overriding or ignoring stall protection system indications. Awareness of the factors that may lead such systems to fail, as well as degraded modes, indications, or behaviors that may occur with system failures.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain buffet boundary and margins in flight planning and operational flying.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the lower margins for stall onset and recovery (i.e., coffin corner) and possible buffet cueing differences on the high-speed versus the low-speed margin.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the principles of high-altitude aerodynamics, performance capabilities, and limitations; including high altitude operations and flight techniques (i.e., the need to avoid secondary stall by extended nose-down recovery, compared to lower altitudes).

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the differences in airplane performance (e.g., thrust available) during high versus low altitude operations, the effects of those differences on stall recovery, and the anticipated altitude loss during a recovery.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the differences between transport category airplane certification and GA airplane certification regarding use of flight controls at high AOA. For example, if the roll control system is compromised and the ailerons are unable to produce the required roll recovery, the rudder may be used with care during stall prevention and recovery. To maintain structural integrity, it is important to guard against control reversals—avoid rapid full-scale reversal of control deflection
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can demonstrate general awareness of example events. Although significant emphasis should be placed on preventing stall events, it is important for pilots to understand that, although rare, stall events continue to occur. Studying the causes and contributing factors of stall events give pilots more knowledge to help prevent or if necessary, recover from a stall event. A review of stall-related accidents, incidents, ASAP, FOQA, and ASRS data for the specific airplane type or class should be included in ground training.

Flight Profiles and Maneuvers	Conduct Stall Prevention and Recovery	Can explain the STICK PUSHER. For airplanes equipped with a stick pusher, stall recovery training includes ground training and practical training in an FFS. It is important for pilots to experience the sudden forward movement of the control yoke/stick during a stick pusher activation. From observations, most instructors state that, regardless of previous academic training, pilots usually resist the stick pusher on their first encounter. Usually, they immediately pull back on the control yoke/stick rather than releasing pressure as they have been taught. Therefore, pilots must receive practical stick pusher training in an FFS to develop the proper response (allowing the pusher to reduce AOA) when confronted with a stick pusher activation. Stick pusher training should be completed as a demonstration/practice exercise, including repetitions, until the pilot's reaction is to permit the reduction in AOA even at low altitudes. Pilot response to a deliberate activation of the pusher is not a checked maneuver.
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain RAIM prediction requirements when using GPS as a substitute means of navigation
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems	Can explain that RNAV systems using WAAS input may be used as an alternate means of navigation without restriction.

	while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that RNAV systems using DME/DME/IRU, without GPS input, may be used as an alternate means of navigation where valid DME/DME position updating is published as available (for example, by NOTAM or authorization).
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that In order to use a substitute means of navigation on departure procedures, pilots of aircraft with RNAV systems using DME/DME/IRU, without GPS input, must ensure their aircraft navigation system position is confirmed, within 1,000 feet, at the start point of takeoff roll. The use of an automatic or manual runway update is an acceptable means of compliance with this requirement. A navigation map display may also be used to confirm aircraft position, if pilot procedures and display resolution allow for compliance with the 1,000-foot tolerance requirement.
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e.,	Can state the definition of RAIM

	non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that Pilots must extract waypoints, NAVAIDs, and fixes by name from the onboard navigation database and comply with the charted procedure or route
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that pilots may not manually enter published procedure or route waypoints via latitude/longitude, place/bearing, or place/bearing/distance into the aircraft system
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures	Can explain that Operators operating under parts 91K, 121, 125, 129, and 135 must also be equipped with at least one other independent navigation system in addition to an installed and operable RNAV system. This additional system must be suitable, in the event of loss of navigation capability of the RNAV system, for proceeding safely to a suitable airport and completing an instrument approach.

	within the U.S. National Airspace System (NAS)	
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that for the purposes of flight planning, any required alternate airport must have an available IAP that does not require the use of GPS.
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance –	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

	Broadcast (ADS-B) In and Out	
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - autopilot	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain immediate action items or memory items, if appropriate

Avionics and Communications	Understand Avionics and communications - autopilot	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - autopilot	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

	link, UHF/VHF/HF, satellite)	
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate

Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite) - Radio Failure / Mistune During A Dual Coupled ILS Approach	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain system or component limitations
Avionics and	Understand Avionics and communications -	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Communications	Electronic Flight Instrument Systems (EFIS)	
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Crew Alerting System (CAS) Caution Messages and Procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Synthetic Vision-Primary Flight Display Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and	Understand Avionics and	Can explain immediate action items or memory items, if appropriate

Communications	communications - emergency locator transmitter.	
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that at system initialization, pilots must confirm the navigation database is current and verify the aircraft's present position.
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that RNAV DPs and STAR procedures must be retrieved by procedure name from the onboard navigation database and conform to the charted procedure
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that whenever possible, RNAV routes should be extracted from the database in their entirety, rather than loading RNAV route waypoints from the database into the flight plan individually. Selecting and inserting individual, named fixes from the database is permitted, provided all fixes along the published route to be flown are inserted
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots must use a lateral deviation indicator (or equivalent navigation map display), flight director and/or autopilot in lateral navigation mode on RNAV 1 routes. The full-scale course deviation indicator (CDI) deflection value of ±1 NM is acceptable

Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots of aircraft without GPS/GNSS, using DME/DME/IRU, must ensure the aircraft navigation system position is confirmed, within 1,000 feet, at the start point of takeoff roll. The use of an automatic or manual runway update is an acceptable means of compliance with this requirement. A navigation map may also be used to confirm aircraft position, if pilot procedures and display resolution allow for compliance with the 1,000-foot tolerance requirement
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe the depiction of waypoint types (flyover and flyby) and path terminators
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain the types of navigation sensors (for example, DME, IRU, GPS/GNSS) utilized by the RNAV system and associated system prioritization/weighting/logic
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications -	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

	Flight Management System (FMS)	
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS) - FMS Powers Up In Single or Independent Mode procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that the onboard navigation data must be current and appropriate for the region of intended operation and must include the navigation aids, waypoints, and relevant coded terminal airspace procedures for the departure, arrival, and alternate airfields.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that RNAV 2 requires a total system error of not more than 2 NM for 95 percent of the total flight time
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that Receiver Autonomous Integrity Monitoring (RAIM) is a technique used within a GPS receiver/processor to monitor GPS signal performance and is achieved by a consistency check among redundant measurements.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that a SID is a published IFR air traffic control (ATC) DP providing obstacle clearance and a transition from the terminal area to the en route structure.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can describe the operation of the airplane systems and components using correct terminology

Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS) - GPS / SBAS Reception Loss During RNAV (GPS) Approach to Minima procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area	Can describe the performance requirement and the fail-down capabilities of the system

	augmentation system	
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe the meaning and proper use of aircraft equipment/navigation suffixes
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can explain immediate action items or memory items, if appropriate

Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - indicating devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - indicating devices - (EVS) Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - (HUD)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

	Malfunctions procedure	
Avionics and Communications	Understand Avionics and communications - indicating devices - Charts Function DU 2 and 3 Inoperative procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Charts Function Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Equipment Loss While in RVSM Airspace procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Video Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications -	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

	Inertial Navigation Systems (INS)	
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS) - IRS Align In Motion procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Radar	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Radar	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Radar	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Radar	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Radar	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Radar	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can list required equipment for RNP operations
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret aircraft automation, mode annunciations, changes, alerts, interactions, reversions, and degradations
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain functional integration with other aircraft systems
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries	Can list the types of navigation sensors used by the RNP system and their annunciations

	which adopt ICAO standards for RNP operations.	
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret electronic displays and symbols
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the importance of maintaining the published path and maximum airspeeds while performing RNP operations with Radius to Fix (RF) legs (if applicable)
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe flightcrew contingency procedures for a loss of RNP capability; and

Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the performance requirement to couple the autopilot (AP)/flight director (FD) to the navigation system's lateral guidance on RNP procedures, if required
Avionics and Communications	Understand Avionics and Communications - Supporting Systems	Can interpret Other associated instrumentation and displays including any head-up display, guidance system, vision system, monitoring displays, status displays, mode annunciation displays, failure or warning annunciations, and associated system status displays that may be relevant. When such airborne systems are used as the basis for category(s) of minima (e.g., HUD or SVGS for Special Authorization (SA) CAT I; AP, F/D, or HUD for CAT I Landing Minima with Reduced Lighting (RVR 1800)), training should address the relationships between the various system components and the minima for which they are required.
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/alert systems	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/alert systems	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/alert systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/alert systems	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/alert systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/alert systems - (EGPWS) Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain immediate action items or memory items, if appropriate

Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems - TCAS Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - transponder	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - transponder	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - transponder	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - transponder	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - transponder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - transponder	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand EFVS Operations	Can describe applicable airworthiness criteria for EFVS-TD capable systems IAW FAR § 91.176(a)(1) as described in an Airplane Flight Manual or its supplement, AFM(S).

Avionics and Communications	Understand EFVS Operations	Can describe applicable airworthiness criteria for EFVS-100 capable systems IAW FAR § 91.176(b)(1) as described in an Airplane Flight Manual or its supplement, AFM(S).
Avionics and Communications	Understand EFVS Operations	Can explain all required pilot flightcrew members must have received and logged the appropriate ground training in EFVS operations IAW FAR § 61.66(a)(1). All PICs or those manipulating the controls (PF) of an aircraft during EFVS operations must have received and logged the appropriate flight training in EFVS operations IAW FAR § 61.66(b)(1). A logbook endorsement or record of training completion is required for the appropriate EFVS operation (EFVS-TD and/or EFVS-100) unless using a military, 61.66(f) exemption OR the pilot can show documentation of satisfactory completion of EFVS-100 operations prior to March 13, 2018.
Avionics and Communications	Understand EFVS Operations	Can explain the checking requirements for EFVS operations as an approved air carrier. For Part 135 operations, FAR § 135.293(i) requires competency checks completed under FAR § 135.293(b) include tasks appropriate to the EFVS operations the certificate holder is authorized to conduct.
Avionics and Communications	Understand EFVS Operations	Can explain pilots conducting EFVS operations for parts 91K, 121, 125, and 135 maintain recent flight experience through satisfactory completion of EFVS tasks and maneuvers during their recurring proficiency checks or competency checks.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS operational credit is credit for a portion of flight visibility prescribed by the IAP being flown that is satisfied by the enhanced image provided by the EFVS. EFVS operational credit is authorized in FAA OpSpec C048.

Avionics and Communications	Understand EFVS Operations	Can describe EFVS operational credit is used by authorized parts 121, 125, and 135 CHs and part 129 foreign air carriers to determine minimum visibilities to: 1. Dispatch, release, or take off a flight under instrument flight rules (IFR) when the forecast weather at the destination airport is equal to or greater than the authorized minimums for use with an EFVS (refer to §§ 121.613, 125.361, and 135.219); and 2. Begin, execute, or continue an approach when the weather is reported to be equal to or greater than the authorized minimums for use with an EFVS (refer to §§ 121.651, 125.325, 125.381, and 135.225).
Avionics and Communications	Understand EFVS Operations	Can explain a standard EFVS credit. The Flight Technologies and Procedures Division evaluates available performance data from numerous sources such as other operational evaluations and Original Equipment Manufacturer (OEM) demonstrations conducted in the type design approval process. A standard credit is recommended for an installed EFVS sensor and is published in the Operational Suitability Report (OSR), Operational Credit for Enhanced Flight Vision Systems (EFVS). An operator applying for EFVS operational credit that elects to use the standard credit would not need to demonstrate system performance; however, this does not restrict an operator from conducting their own performance demonstration to determine operational credit. Industry consensus methodology for performance demonstrations is contained in RTCA DO-390, Test Procedures for Quantified Visual Advantage. The OSR can be found at https://drs.faa.gov/browse/excelExternalWindow/bb448b0f-d979-42a2-8d67-9346707e6d29.

Avionics and Communications	Understand EFVS Operations	Can explain Minimum Visibility with Use of EFVS for Parts 121, 125, 129, and 135. OpSpec C048 may include authorization to use a credit to reduce the visibility required for operating without the use of the EFVS (see Table 1, Sample Minimum Visibility Table). The credits based on the demonstrated EFVS sensor performance.
Avionics and Communications	Understand EFVS Operations	Can explain Landing Weather Minimums for Recently Upgraded PICs. Recently upgraded PICs are subject to § 121.652, § 125.379, or § 135.225(e), which temporarily raise IAP minimums to afford an extra layer of safety while experience operating as PIC is gained. EFVS minimum visibility should not be used until the requirements of these regulations are met, as this may negate the safety margins intended by these regulations.
Avionics and Communications	Understand EFVS Operations	Can explain Alternate Airport Weather. The use of EFVS minimum visibility is not advised for alternate airport planning. However, once in flight, a pilot may use EFVS minimum visibilities to begin an approach at an alternate airport.
Avionics and Communications	Understand EFVS Operations	Can ensure considerations for Part 91K, 125, or 135 Pilot Training Programs. Initial training for pilots under part 91K, 125, or 135 must include the required elements listed in FAR § 61.66(a)(2) and (b)(2). The required elements and suggested methods of meeting said requirements can be found in Appendix A. Part 91K, 125, or 135 competency checks should include appropriate EFVS tasks.
Avionics and Communications	Understand EFVS Operations	Can demonstrate familiarization with an overview per FAR § 91.176, parts 121, 125, and 135 CHs require OpSpec C048 to conduct EFVS-100 or EFVS-TD operations, and may include provisions to use EFVS operational credit. Part 91K program managers require MSpec C048 to conduct EFVS-100 or EFVS-TD operations. MSpec C048 does not include provisions to use EFVS operational credit.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 1. Airworthiness Documentation. Excerpts from the AFM(S) that identify the EFVS operation(s) for which the system received airworthiness approval. The FAA recommends incorporating any procedures or operating limitations in the AFM(S) into the approved EFVS training curriculum and operating manuals.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 2. Operating Manuals. Applicable sections of operating manuals (e.g., Airplane Operations Manual (AOM), Flight Operations Manual (FOM), pilot's operating handbook (POH), and/or quick reference handbook (QRH)) that contain the operator's procedures or provisions for using an EFVS. These procedures can be incorporated in the operator's approved EFVS training curriculum and in the AFM(S).

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 3. EFVS Pilot Training Curriculum. A proposed EFVS training curriculum that ensures the pilot meet the requirements of § 61.66. Paragraph 9 and Appendix A contain information for developing a training curriculum to include the required ground training subjects and flight training tasks required by § 61.66(a) and (b). It is acceptable to incorporate a previously approved curriculum provided by a part 141 or 142 school.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 4. EFVS Provisions in the MEL. If the applicant is seeking MEL relief for EFVS, they should provide the proposed MEL containing appropriate operations and maintenance procedures that consider all applicable components of the EFVS during MEL submission, review, and approval.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 5. Application for Operational Credit. Operators operating under parts 121, 125, and 135 CHs applying for authorization to use EFVS operational credit should provide: a. A statement of proposed credit. Operators may propose use of the standard credit published in the EFVS OSR, which is based on previous demonstrations of system visual advantage. When an operator elects to use the standard credit, it is not necessary to demonstrate visual advantage during the operational demonstration. If the applicant elects to perform their own demonstration, AC 20-167 provides methods that can be used to demonstrate quantified visual advantage in the certification process. b. EFVS training curriculum for dispatchers or other persons exercising operational control, as described in paragraph 9 and Appendix C. c. Dispatch procedures manual or a general operation manual, as applicable, containing procedures for using the authorized EFVS operational credit to determine the minimum visibilities for use with EFVS.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 6. EFVS Maintenance Procedures. EFVS maintenance procedures or programs as described in Appendix B. If the applicant is responsible for the training of maintenance personnel, the applicant can also provide an EFVS training curriculum for maintenance personnel, as described in paragraph 9 and Appendix B.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of EFVS Operational Demonstration for Parts 91K, 121, 125, and 135 Applications. The FAA's process for approval and acceptance includes observing and evaluating the operator's ability to perform the proposed operation(s) in accordance with the procedures, guidelines, and parameters described in the operator's formal application. The means for meeting the operational demonstration objectives and an appropriate timeline are established through an agreement between the operator and the responsible Flight Standards Safety Assurance office. The are many acceptable means by which an operational demonstration can be accomplished (e.g., tabletop exercises, simulators, classroom observations, observations of line operations, observations of training flights, or any other agreed-upon means).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(i) can demonstrate an overview of the regulations relevant to EFVS operations. A list of the regulations is in Appendix D, Related Regulations and Guidance. Appendix D includes 61.66, 91.1065, 121.407, 121.409, 121.441 including Appendices F and H, 125.287, 135.293, 91.176, 91.189(d) and (e), 91.1039, 121.651, 125.325, 125.381, 135.225, 91.905, AC 20-167, AC 61-65, AC 120-54, AC 120-57, AC 120-71, and AC 120-118.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(i) can demonstrate an overview of an AFM or its supplement (AFM(S)) or other manufacturer documentation that specifies the type of EFVS operation the EFVS is certified to conduct, specifies performance applicable to the use of operational credit, or defines specific procedures, conditions, or limitations associated with operating the EFVS. In some cases, procedures described in an AFM(S) may be more restrictive than the regulations.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the characteristics of the enhanced imagery provided by an EFVS. An EFVS image must be real-time, conformal, and sensor-based. Imagery that is computer-generated from a database, such as a synthetic image, cannot be used to conduct an EFVS operation.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the symbology and equipment requirements to be used for EFVS operations to touchdown and rollout (EFVS-TD) operations listed under 14 CFR part 91, § 91.176(a)(1).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the symbology and equipment requirements of an EFVS to be used for EFVS operations to 100 feet above the touchdown zone elevation (TDZE) (EFVS-100) operations listed under § 91.176(b)(1).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the controls for the EFVS image to include display brightness, contrast, and image modes.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the control for turning the EFVS image on or off. This control is important, because if the sensor imagery were to obscure the pilot's view of the outside scene, the pilot should have a readily available means to immediately remove the sensor imagery from the Head-Up Display (HUD). However, in order to continue an EFVS operation, the pilot should reactivate the image as soon as possible.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain how computer-generated synthetic elements are presented in the image, if applicable. Some systems may integrate synthetic vision elements into the image displayed on the HUD. A pilot should be able to differentiate between the sensor-based elements and the computer-generated elements.
Avionics and	Understand EFVS Operations	Per § 61.66(a)(2)(iii) explain the runway and extended runway centerline symbology presented during the approach phase.

Communications		
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the field of view (FOV) of the EFVS display.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can explain the imaging technology of the EFVS sensor and the related limitations (i.e., light detection, obstacle detection, weather types, and FOV). The AFM(S) may specify any limitations or demonstrated performance applicable to the installed EFVS. An EFVS can display imagery that may significantly improve a pilot's capability to detect approach lights and visual references of the runway environment that may not otherwise be visible using natural vision. Not all EFVS sensors have the same imaging capabilities. Some sensors may image particular materials and some may focus in specific energy spectrums. Some sensor technologies are more affected by certain weather conditions (e.g., obscurations and precipitation). Some systems utilize multiple sensors to combine the benefits from different technologies.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can demonstrate an overview on interpreting a sensor-generated scene presented by the EFVS. Images may have characteristics and contain artifacts that are unique to the sensor technology, EFVS image processing software, or display characteristics (i.e., monochrome colors). An external scene generated from infrared technology may be different from a scene generated from another technology or combination of technologies.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can demonstrate an overview of image anomalies of the installed EFVS. Anomalies such as "noise," "blooming," parallax, and other visual effects may be more prevalent in different EFVS installations.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of flight planning considerations for sensor performance and limitations.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can explain the optimal EFVS settings for different phases of flight and meteorological conditions.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of techniques for identifying visual references with natural vision at 100 feet above the TDZE for EFVS-100 operations. There may be several techniques that crews can use to ensure that visual references are seen with natural vision while continuing to use the EFVS image. It is important that these techniques do not reinforce deactivating the EFVS image more than momentarily during the EFVS operation.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of considerations for conducting EFVS operations with a limited EFVS FOV. A combination of crosswind correction, approach course offset, and the lateral FOV may result in the inability of the pilot to acquire and maintain visual references.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of considerations for executing a go-around below a DA/DH or MDA. Whether a pilot is using an EFVS or natural vision, obstacle clearance should not be assumed when initiating a go-around below a DA/DH or MDA or after the missed approach point. The missed approach procedure should be thoroughly briefed and accurately flown, and may need additional climb performance beyond the standard 200 feet per nautical mile to ensure adequate obstacle clearance.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of the considerations for visual segment obstacle clearance. Pilots using an EFVS should be careful not to conclude that the flightpath is free of obstacles because no obstacles are distinctly visible in the EFVS image. The approach procedure should be thoroughly briefed and accurately flown.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of the considerations for conducting EFVS operations on special instrument approach procedures (IAP). Operators that have a specific approval from the FAA to conduct instrument approaches using special IAPs should evaluate those instrument procedures to determine their compatibility with EFVS operations. These procedures may have nonstandard features or special conditions that may not be compatible with EFVS operations or the performance of an EFVS sensor.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of the considerations for conducting taxi operations after conducting an EFVS operation. Once the EFVS operation is complete, the pilot may have to taxi at an airport with Low-Visibility Operations (LVO)/Surface Movement Guidance and Control System (SMGCS) operations in effect. Although an EFVS may provide some increased situation awareness during taxi operations, natural vision is still essential.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vi) can demonstrate an overview of the effect of obscuration types, precipitation conditions, and low ceilings or cloud layers as contributing factors to the variable and unpredictable characteristics of EFVS sensor performance or EFVS sensor and image quality.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vi) demonstrate an overview of visibility reporting equipment (e.g., Runway Visual Range (RVR), automated surface observing system (ASOS), and Automated Weather Observing System (AWOS)) and their limitations, reporting increments, and relationship to actual flight visibility on the approach.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the operational concepts and the procedures used in EFVS-TD operations, as applicable.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the operational concepts and the procedures used in EFVS-100 operations, as applicable.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following system preflight and in-flight procedures: a. An integrity check of the sensor window.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following system preflight and in-flight procedures: b. System tests and warmup time.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following system preflight and in-flight procedures: c. System control adjustments, to include appropriate setting of EFVS contrast, brightness, and symbology.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following system preflight and in-flight procedures: d. EFVS image alignment procedures with the natural vision image.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: a. Callouts for continuing descent below the DA/DH or MDA using the EFVS.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: b. Callouts for transition from enhanced image to natural vision at 100 feet above the TDZE during an EFVS-100 operation.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: c. Callouts to clearly communicate the decision to land or go around.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: d. Callouts for abnormal EFVS operations.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: a. Expectations of system performance and limitations in reported weather conditions and a minimum visibility for the use of an EFVS (if applicable).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: b. EFVS callouts.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following items to be briefed prior to initiating an approach using the EFVS: c. Other approach considerations that may affect EFVS operations such as final approach offsets and ground infrastructure.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: d. Missed approach considerations and procedure.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following items to be briefed prior to initiating an approach using the EFVS: e. The taxi operation considerations in reported weather conditions.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the PM use of the repeater display during EFVS-TD operations. The PM uses the display to assess the safe conduct of the approach, landing, and rollout, and intervene, if necessary, in visibilities where natural vision may not be sufficient.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the procedure used for determining minimum visibility for use of EFVS for the purpose of releasing the flight or executing an approach, as applicable.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can demonstrate an overview of techniques for identifying EFVS system failures and corresponding procedures. A proper cross-check of the HUD instrumentation presentations against the EFVS sensor image could help recognize malfunctions of the navigation equipment or improper presentation of elements in the visual scene during the approach. In the event any required component fails during an EFVS operation until touchdown, the PF should initiate a go-around. However, this does not preclude a pilot's authority to continue to a landing and rollout if the pilot considers that a safer course of action.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(viii) can integrate the following: it is necessary for the pilot training curriculum to include the interpretation of approach and runway lighting systems and their display characteristics when using an EFVS. This could be accomplished by including an overview of different light sources used in airport and approach lighting systems and the ability of the EFVS to detect them. An EFVS based only on infrared sensor technology may not be capable of imaging light-emitting diode (LED) lighting because energy is not emitted in an infrared spectrum. It is important that pilots are familiar with the potential use of LEDs at their destination and any corresponding limitations of their EFVS. For more information, please refer to Information for Operators (InFO) 11004, Enhanced Flight Vision System (EFVS), Enhanced Vision Systems (EVS), and Night Vision Goggles (NVG) Compatibility with Light-Emitting Diodes (LEDs) at Airports and on Obstacles. You can find InFO 11004 at https://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info.

Avionics and Communications	Understand EFVS Operations	Can explain those portions of this chapter that relate to EFVS flight operations and limitations, including the Airplane Flight Manual or Rotorcraft Flight Manual limitations.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS sensor imagery, required aircraft flight information, and flight symbology.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS display, controls, modes, features, symbology, annunciations, and associated systems and components.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS sensor performance, sensor limitations, scene interpretation, visual anomalies, and other visual effects.
Avionics and Communications	Understand EFVS Operations	Can explain preflight planning and operational considerations associated with using EFVS during taxi, takeoff, climb, cruise, descent and landing phases of flight, including the use of EFVS for instrument approaches, operating below DA/DH or MDA, executing missed approaches, landing, rollout, and balked landings.
Avionics and Communications	Understand EFVS Operations	Can explain weather associated with low visibility conditions and its effect on EFVS performance.
Avionics and Communications	Understand EFVS Operations	Can explain normal, abnormal, emergency, and crew coordination procedures when using EFVS.
Avionics and Communications	Understand EFVS Operations	Can interpret approach and runway lighting systems and their display characteristics when using an EFVS.
Avionics and Communications	Understand EFVS Operations	Can demonstrate an understanding of the applicable EFVS equipment airworthiness requirements for operations to touchdown and rollout. This includes a displayed EFVS sensor image for the pilot monitoring where the symbology does not obscure the runway environment. See 91.176(a)(1)(i)(A) through (F) and (ii) for details.

Avionics and Communications	Understand EFVS Operations	Can ensure the pilot conducting the EFVS operation may not use circling minimums.
Avionics and Communications	Understand EFVS Operations	Each required pilot flightcrew member must demonstrate adequate knowledge of, and familiarity with, the aircraft, the EFVS, and the procedures to be used.
Avionics and Communications	Understand EFVS Operations	Can ensure the aircraft must be equipped with, and the pilot flying must use, an operable EFVS that meets the equipment requirements of paragraph (a)(1) of this section.
Avionics and Communications	Understand EFVS Operations	Ensure when a minimum flightcrew of more than one pilot required, the pilot monitoring must use the display specified in paragraph (a)(1)(ii) to monitor and assess the safe conduct of the approach, landing, and rollout.
Avionics and Communications	Understand EFVS Operations	Can appreciate why the aircraft must continuously be in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal maneuvers.
Avionics and Communications	Understand EFVS Operations	Appreciate why the descent rate must allow touchdown to occur within the touchdown zone of the runway of intended landing.
Avionics and Communications	Understand EFVS Operations	Can ensure a person exercising the privileges of a pilot certificate issued under this chapter, any person serving as a required pilot flightcrew member of a U.S.-registered aircraft, or any person serving as a required pilot flightcrew member for a part 121, 125, or 135 operators, must be qualified in accordance with part 61 and, as applicable, the training, testing, and qualification provisions of subpart K of this part, part 121, 125, or 135 of this chapter that apply to the operation;

Avionics and Communications	Understand EFVS Operations	Can ensure each person acting as a required pilot flightcrew member for a foreign air carrier subject to part 129, or any person serving as a required pilot flightcrew member of a foreign registered aircraft, must be qualified in accordance with the training requirements of the civil aviation authority of the State of the operator for the EFVS operation to be conducted.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under this part must conduct the operation in accordance with a letter of authorization for the use of EFVS unless the operation is conducted in an aircraft that has been issued an experimental certificate under § 21.191 of this chapter for the purpose of research and development or showing compliance with regulations, or the operation is being conducted by a person otherwise authorized to conduct EFVS operations under paragraphs (a)(2)(ix) through (xii) of this section. A person applying to the FAA for a letter of authorization must submit an application in a form and manner prescribed by the Administrator.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under part 121, 129, or 135 of this chapter must conduct the operation in accordance with operations specifications authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting an EFVS operation during an authorized Category II or Category III operation must conduct the operation in accordance with operations specifications, management specifications, or a letter of authorization authorizing EFVS operations during authorized Category II or Category III operations.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless the pilot determines that the enhanced flight visibility observed by use of an EFVS is not less than the visibility prescribed in the instrument approach procedure being used.
Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless from the authorized DA/DH to 100 feet above the touchdown zone elevation of the runway of intended landing, any approach light system or both the runway threshold and the touchdown zone are distinctly visible and identifiable to the pilot using an EFVS. (A) The pilot must identify the runway threshold using at least one of the following visual references - (1) The beginning of the runway landing surface; (2) The threshold lights; or (3) The runway end identifier lights. (B) The pilot must identify the touchdown zone using at least one of the following visual references - (1) The runway touchdown zone landing surface; (2) The touchdown zone lights; (3) The touchdown zone markings; or (4) The runway lights.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless at 100 feet above the touchdown zone elevation of the runway of intended landing and below that altitude, the enhanced flight visibility using EFVS must be sufficient for one of the following visual references to be distinctly visible and identifiable to the pilot - (A) The runway threshold; (B) The lights or markings of the threshold; (C) The runway touchdown zone landing surface; or (D) The lights or markings of the touchdown zone.
Avionics and Communications	Understand EFVS Operations	Can explain the Administrator may prescribe additional equipment, operational, and visibility and visual reference requirements to account for specific equipment characteristics, operational procedures, or approach characteristics. These requirements will be specified in an operator's operations specifications, management specifications, or letter of authorization authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can demonstrate an understanding of the applicable EFVS equipment airworthiness requirements for operations to 100 feet above the touchdown zone. See 91.176(a)(1)(i)(A) through (F) for details; however, a flare prompt, flare guidance, or height above ground level need not be present for operations to 100 feet above the touchdown zone.
Avionics and Communications	Understand EFVS Operations	Can ensure the pilot conducting the EFVS operation may not use circling minimums.

Avionics and Communications	Understand EFVS Operations	Each required pilot flightcrew member must demonstrate adequate knowledge of, and familiarity with, the aircraft, the EFVS, and the procedures to be used.
Avionics and Communications	Understand EFVS Operations	Can ensure the aircraft must be equipped with, and the pilot flying must use, an operable EFVS that meets the equipment requirements of paragraph (b)(1) of this section.
Avionics and Communications	Understand EFVS Operations	Appreciate why the aircraft must continuously be in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal maneuvers.
Avionics and Communications	Understand EFVS Operations	Can appreciate why for operations conducted under part 121 or part 135 of this chapter, the descent rate must allow touchdown to occur within the touchdown zone of the runway of intended landing
Avionics and Communications	Understand EFVS Operations	Ensure a person exercising the privileges of a pilot certificate issued under this chapter, any person serving as a required pilot flightcrew member of a U.S.-registered aircraft, or any person serving as a required pilot flightcrew member for a part 121, 125, or 135 operators, must be qualified in accordance with part 61 and, as applicable, the training, testing, and qualification provisions of subpart K of this part, part 121, 125, or 135 of this chapter that apply to the operation;
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under part 121, 129, or 135 of this chapter must conduct the operation in accordance with operations specifications authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting an EFVS operation during an authorized Category II or Category III operation must conduct the operation in accordance with operations specifications, management specifications, or a letter of authorization authorizing EFVS operations during authorized Category II or Category III operations.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless the pilot determines that the enhanced flight visibility observed by use of an EFVS is not less than the visibility prescribed in the instrument approach procedure being used.
Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless from the authorized MDA or DA/DH to 100 feet above the touchdown zone elevation of the runway of intended landing, any approach light system or both the runway threshold and the touchdown zone are distinctly visible and identifiable to the pilot using an EFVS. (A) The pilot must identify the runway threshold using at least one of the following visual references- (1) The beginning of the runway landing surface; (2) The threshold lights; or (3) The runway end identifier lights. (B) The pilot must identify the touchdown zone using at least one of the following visual references - (1) The runway touchdown zone landing surface; (2) The touchdown zone lights; (3) The touchdown zone markings; or (4) The runway lights.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless at 100 feet above the touchdown zone elevation of the runway of intended landing and below that altitude, the flight visibility must be sufficient for one of the following visual references to be distinctly visible and identifiable to the pilot without reliance on the EFVS - (A) The runway threshold; (B) The lights or markings of the threshold; (C) The runway touchdown zone landing surface; or (D) The lights or markings of the touchdown zone.
Avionics and Communications	Understand EFVS Operations	Can consider the compliance date. Beginning on March 13, 2018, a person conducting an EFVS operation to 100 feet above the touchdown zone elevation must comply with the requirements of paragraph (b) of this section.
Avionics and Communications	Understand EFVS Operations	Can determine the recommended EFVS Operational Credit capability for their make/model and possibly serial number for their aircraft using Appendices 1 and 2.
Avionics and Communications	Understand EFVS Operations	Can appreciate the EFVS Operational Credit Tables in Appendix 3 for risk management under Part 91 operations or compliance for air carrier operations.
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear recognition
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear pilot technique

Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff after liftoff
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff while on the runway
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff while on the runway
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter on the approach
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss general windshear recovery technique
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Lighting	Understand Lighting	Can describe the operation of the airplane systems and components using correct terminology
Lighting	Understand Lighting	Can explain system or component limitations
Lighting	Understand Lighting	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Lighting	Understand Lighting	Can explain immediate action items or memory items, if appropriate
Lighting	Understand Lighting	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Lighting	Understand Lighting	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**

Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can describe the operation of the airplane systems and components using correct terminology
Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can explain system or component limitations
Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can explain immediate action items or memory items, if appropriate
Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Auxiliary Power Unit	Understand Auxiliary Power Unit (APU)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can explain system or component limitations
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Electrical System	Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Electrical System - controls	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - controls	Can explain system or component limitations
Electrical System	Understand Electrical System - controls	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - controls	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - controls	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - controls	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can explain system or component limitations
Electrical System	Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - generators	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - generators	Can explain system or component limitations

Electrical System	Understand Electrical System - generators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - generators	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - generators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - generators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Electrical System - indicators	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - indicators	Can explain system or component limitations
Electrical System	Understand Electrical System - indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - indicators	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - indicators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Electrical System - batteries	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - batteries	Can explain system or component limitations
Electrical System	Understand Electrical System - batteries	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Electrical System	Understand Electrical System - batteries	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - batteries	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - batteries	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Day 2 Ground School Learning Objectives

Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain RAIM prediction requirements when using GPS as a substitute means of navigation
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that RNAV systems using WAAS input may be used as an alternate means of navigation without restriction.
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that RNAV systems using DME/DME/IRU, without GPS input, may be used as an alternate means of navigation where valid DME/DME position updating is published as available (for example, by NOTAM or authorization).

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that In order to use a substitute means of navigation on departure procedures, pilots of aircraft with RNAV systems using DME/DME/IRU, without GPS input, must ensure their aircraft navigation system position is confirmed, within 1,000 feet, at the start point of takeoff roll. The use of an automatic or manual runway update is an acceptable means of compliance with this requirement. A navigation map display may also be used to confirm aircraft position, if pilot procedures and display resolution allow for compliance with the 1,000-foot tolerance requirement.
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can state the definition of RAIM
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that Pilots must extract waypoints, NAVAIDs, and fixes by name from the onboard navigation database and comply with the charted procedure or route

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that pilots may not manually enter published procedure or route waypoints via latitude/longitude, place/bearing, or place/bearing/distance into the aircraft system
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that Operators operating under parts 91K, 121, 125, 129, and 135 must also be equipped with at least one other independent navigation system in addition to an installed and operable RNAV system. This additional system must be suitable, in the event of loss of navigation capability of the RNAV system, for proceeding safely to a suitable airport and completing an instrument approach.
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that for the purposes of flight planning, any required alternate airport must have an available IAP that does not require the use of GPS.
Avionics and	Understand Avionics and communications -	Can describe the operation of the airplane systems and components using correct terminology

Communications	Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Avionics and Communications	Understand Avionics and communications - autopilot	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - autopilot	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - autopilot	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

	link, UHF/VHF/HF, satellite)	
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations

Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite) - Radio Failure / Mistune During A Dual Coupled ILS Approach	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Avionics and Communications	Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Crew Alerting System (CAS) Caution Messages and Procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Synthetic Vision-Primary Flight Display Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that at system initialization, pilots must confirm the navigation database is current and verify the aircraft's present position.

Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that RNAV DPs and STAR procedures must be retrieved by procedure name from the onboard navigation database and conform to the charted procedure
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that whenever possible, RNAV routes should be extracted from the database in their entirety, rather than loading RNAV route waypoints from the database into the flight plan individually. Selecting and inserting individual, named fixes from the database is permitted, provided all fixes along the published route to be flown are inserted
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots must use a lateral deviation indicator (or equivalent navigation map display), flight director and/or autopilot in lateral navigation mode on RNAV 1 routes. The full-scale course deviation indicator (CDI) deflection value of ±1 NM is acceptable
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots of aircraft without GPS/GNSS, using DME/DME/IRU, must ensure the aircraft navigation system position is confirmed, within 1,000 feet, at the start point of takeoff roll. The use of an automatic or manual runway update is an acceptable means of compliance with this requirement. A navigation map may also be used to confirm aircraft position, if pilot procedures and display resolution allow for compliance with the 1,000-foot tolerance requirement
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe the depiction of waypoint types (flyover and flyby) and path terminators
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain the types of navigation sensors (for example, DME, IRU, GPS/GNSS) utilized by the RNAV system and associated system prioritization/weighting/logic
Avionics and Communications	Understand Avionics and communications -	Can describe the operation of the airplane systems and components using correct terminology

	Flight Management System (FMS)	
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS) - FMS Powers Up In Single or Independent Mode procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that the onboard navigation data must be current and appropriate for the region of intended operation and must include the navigation aids, waypoints, and relevant coded terminal airspace procedures for the departure, arrival, and alternate airfields.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that RNAV 2 requires a total system error of not more than 2 NM for 95 percent of the total flight time

Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that Receiver Autonomous Integrity Monitoring (RAIM) is a technique used within a GPS receiver/processor to monitor GPS signal performance and is achieved by a consistency check among redundant measurements.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that a SID is a published IFR air traffic control (ATC) DP providing obstacle clearance and a transition from the terminal area to the en route structure.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS) - GPS / SBAS Reception Loss During RNAV (GPS) Approach to Minima procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe the performance requirement and the fail-down capabilities of the system
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe the meaning and proper use of aircraft equipment/navigation suffixes
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can describe the operation of the airplane systems and components using correct terminology
Avionics and	Understand Avionics and communications -	Can explain system or component limitations

Communications	ground-based navigation systems and components	
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain immediate action items or memory items, if appropriate

Avionics and Communications	Understand Avionics and communications - indicating devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - indicating devices - (EVS) Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - (HUD) Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Charts Function DU 2 and 3 Inoperative procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Charts Function Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Equipment Loss While in RVSM Airspace procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Video Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS) - IRS Align In Motion procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Radar	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Radar	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Radar	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Avionics and Communications	Understand Avionics and communications - Radar	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Radar	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Radar	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can list required equipment for RNP operations
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret aircraft automation, mode annunciations, changes, alerts, interactions, reversions, and degradations
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries	Can explain functional integration with other aircraft systems

	which adopt ICAO standards for RNP operations.	
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can list the types of navigation sensors used by the RNP system and their annunciations
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret electronic displays and symbols
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the importance of maintaining the published path and maximum airspeeds while performing RNP operations with Radius to Fix (RF) legs (if applicable)

Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe flightcrew contingency procedures for a loss of RNP capability; and
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the performance requirement to couple the autopilot (AP)/flight director (FD) to the navigation system's lateral guidance on RNP procedures, if required
Avionics and Communications	Understand Avionics and Communications - Supporting Systems	Can interpret Other associated instrumentation and displays including any head-up display, guidance system, vision system, monitoring displays, status displays, mode annunciation displays, failure or warning annunciations, and associated system status displays that may be relevant. When such airborne systems are used as the basis for category(s) of minima (e.g., HUD or SVGS for Special Authorization (SA) CAT I; AP, F/D, or HUD for CAT I Landing Minima with Reduced Lighting (RVR 1800)), training should address the relationships between the various system components and the minima for which they are required.
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can describe the operation of the airplane systems and components using correct terminology

Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems - (EGPWS) Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain system or component limitations

Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems - TCAS Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - transponder	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - transponder	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - transponder	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - transponder	Can explain immediate action items or memory items, if appropriate

Avionics and Communications	Understand Avionics and communications - transponder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - transponder	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand EFVS Operations	Can describe applicable airworthiness criteria for EFVS-TD capable systems IAW FAR § 91.176(a)(1) as described in an Airplane Flight Manual or its supplement, AFM(S).
Avionics and Communications	Understand EFVS Operations	Can describe applicable airworthiness criteria for EFVS-100 capable systems IAW FAR § 91.176(b)(1) as described in an Airplane Flight Manual or its supplement, AFM(S).
Avionics and Communications	Understand EFVS Operations	Can explain all required pilot flightcrew members must have received and logged the appropriate ground training in EFVS operations IAW FAR § 61.66(a)(1). All PICs or those manipulating the controls (PF) of an aircraft during EFVS operations must have received and logged the appropriate flight training in EFVS operations IAW FAR § 61.66(b)(1). A logbook endorsement or record of training completion is required for the appropriate EFVS operation (EFVS-TD and/or EFVS-100) unless using a military, 61.66(f) exemption OR the pilot can show documentation of satisfactory completion of EFVS-100 operations prior to March 13, 2018.
Avionics and Communications	Understand EFVS Operations	Can explain the checking requirements for EFVS operations as an approved air carrier. For Part 135 operations, FAR § 135.293(i) requires competency checks completed under FAR § 135.293(b) include tasks appropriate to the EFVS operations the certificate holder is authorized to conduct.
Avionics and Communications	Understand EFVS Operations	Can explain pilots conducting EFVS operations for parts 91K, 121, 125, and 135 maintain recent flight experience through satisfactory completion of EFVS tasks and maneuvers during their recurring proficiency checks or competency checks.

Avionics and Communications	Understand EFVS Operations	Can explain EFVS operational credit is credit for a portion of flight visibility prescribed by the IAP being flown that is satisfied by the enhanced image provided by the EFVS. EFVS operational credit is authorized in FAA OpSpec C048.
Avionics and Communications	Understand EFVS Operations	Can describe EFVS operational credit is used by authorized parts 121, 125, and 135 CHs and part 129 foreign air carriers to determine minimum visibilities to: 1. Dispatch, release, or take off a flight under instrument flight rules (IFR) when the forecast weather at the destination airport is equal to or greater than the authorized minimums for use with an EFVS (refer to §§ 121.613, 125.361, and 135.219); and 2. Begin, execute, or continue an approach when the weather is reported to be equal to or greater than the authorized minimums for use with an EFVS (refer to §§ 121.651, 125.325, 125.381, and 135.225).

Avionics and Communications	Understand EFVS Operations	Can explain a standard EFVS credit. The Flight Technologies and Procedures Division evaluates available performance data from numerous sources such as other operational evaluations and Original Equipment Manufacturer (OEM) demonstrations conducted in the type design approval process. A standard credit is recommended for an installed EFVS sensor and is published in the Operational Suitability Report (OSR), Operational Credit for Enhanced Flight Vision Systems (EFVS). An operator applying for EFVS operational credit that elects to use the standard credit would not need to demonstrate system performance; however, this does not restrict an operator from conducting their own performance demonstration to determine operational credit. Industry consensus methodology for performance demonstrations is contained in RTCA DO-390, Test Procedures for Quantified Visual Advantage. The OSR can be found at https://drs.faa.gov/browse/excelExternalWindow/bb448b0f-d979-42a2-8d67-9346707e6d29.
Avionics and Communications	Understand EFVS Operations	Can explain Minimum Visibility with Use of EFVS for Parts 121, 125, 129, and 135. OpSpec C048 may include authorization to use a credit to reduce the visibility required for operating without the use of the EFVS (see Table 1, Sample Minimum Visibility Table). The credits based on the demonstrated EFVS sensor performance.
Avionics and Communications	Understand EFVS Operations	Can explain Landing Weather Minimums for Recently Upgraded PICs. Recently upgraded PICs are subject to § 121.652, § 125.379, or § 135.225(e), which temporarily raise IAP minimums to afford an extra layer of safety while experience operating as PIC is gained. EFVS minimum visibility should not be used until the requirements of these regulations are met, as this may negate the safety margins intended by these regulations.

Avionics and Communications	Understand EFVS Operations	Can explain Alternate Airport Weather. The use of EFVS minimum visibility is not advised for alternate airport planning. However, once in flight, a pilot may use EFVS minimum visibilities to begin an approach at an alternate airport.
Avionics and Communications	Understand EFVS Operations	Can ensure considerations for Part 91K, 125, or 135 Pilot Training Programs. Initial training for pilots under part 91K, 125, or 135 must include the required elements listed in FAR § 61.66(a)(2) and (b)(2). The required elements and suggested methods of meeting said requirements can be found in Appendix A. Part 91K, 125, or 135 competency checks should include appropriate EFVS tasks.
Avionics and Communications	Understand EFVS Operations	Can demonstrate familiarization with an overview per FAR § 91.176, parts 121, 125, and 135 CHs require OpSpec C048 to conduct EFVS-100 or EFVS-TD operations, and may include provisions to use EFVS operational credit. Part 91K program managers require MSpec C048 to conduct EFVS-100 or EFVS-TD operations. MSpec C048 does not include provisions to use EFVS operational credit.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 1. Airworthiness Documentation. Excerpts from the AFM(S) that identify the EFVS operation(s) for which the system received airworthiness approval. The FAA recommends incorporating any procedures or operating limitations in the AFM(S) into the approved EFVS training curriculum and operating manuals.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 2. Operating Manuals. Applicable sections of operating manuals (e.g., Airplane Operations Manual (AOM), Flight Operations Manual (FOM), pilot's operating handbook (POH), and/or quick reference handbook (QRH)) that contain the operator's procedures or provisions for using an EFVS. These procedures can be incorporated in the operator's approved EFVS training curriculum and in the AFM(S).
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 3. EFVS Pilot Training Curriculum. A proposed EFVS training curriculum that ensures the pilot meet the requirements of § 61.66. Paragraph 9 and Appendix A contain information for developing a training curriculum to include the required ground training subjects and flight training tasks required by § 61.66(a) and (b). It is acceptable to incorporate a previously approved curriculum provided by a part 141 or 142 school.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 4. EFVS Provisions in the MEL. If the applicant is seeking MEL relief for EFVS, they should provide the proposed MEL containing appropriate operations and maintenance procedures that consider all applicable components of the EFVS during MEL submission, review, and approval.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 5. Application for Operational Credit. Operators operating under parts 121, 125, and 135 CHs applying for authorization to use EFVS operational credit should provide: a. A statement of proposed credit. Operators may propose use of the standard credit published in the EFVS OSR, which is based on previous demonstrations of system visual advantage. When an operator elects to use the standard credit, it is not necessary to demonstrate visual advantage during the operational demonstration. If the applicant elects to perform their own demonstration, AC 20-167 provides methods that can be used to demonstrate quantified visual advantage in the certification process. b. EFVS training curriculum for dispatchers or other persons exercising operational control, as described in paragraph 9 and Appendix C. c. Dispatch procedures manual or a general operation manual, as applicable, containing procedures for using the authorized EFVS operational credit to determine the minimum visibilities for use with EFVS.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 6. EFVS Maintenance Procedures. EFVS maintenance procedures or programs as described in Appendix B. If the applicant is responsible for the training of maintenance personnel, the applicant can also provide an EFVS training curriculum for maintenance personnel, as described in paragraph 9 and Appendix B.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of EFVS Operational Demonstration for Parts 91K, 121, 125, and 135 Applications. The FAA's process for approval and acceptance includes observing and evaluating the operator's ability to perform the proposed operation(s) in accordance with the procedures, guidelines, and parameters described in the operator's formal application. The means for meeting the operational demonstration objectives and an appropriate timeline are established through an agreement between the operator and the responsible Flight Standards Safety Assurance office. The are many acceptable means by which an operational demonstration can be accomplished (e.g., tabletop exercises, simulators, classroom observations, observations of line operations, observations of training flights, or any other agreed-upon means).

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(i) can demonstrate an overview of the regulations relevant to EFVS operations. A list of the regulations is in Appendix D, Related Regulations and Guidance. Appendix D includes 61.66, 91.1065, 121.407, 121.409, 121.441 including Appendices F and H, 125.287, 135.293, 91.176, 91.189(d) and (e), 91.1039, 121.651, 125.325, 125.381, 135.225, 91.905, AC 20-167, AC 61-65, AC 120-54, AC 120-57, AC 120-71, and AC 120-118.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(i) can demonstrate an overview of an AFM or its supplement (AFM(S)) or other manufacturer documentation that specifies the type of EFVS operation the EFVS is certified to conduct, specifies performance applicable to the use of operational credit, or defines specific procedures, conditions, or limitations associated with operating the EFVS. In some cases, procedures described in an AFM(S) may be more restrictive than the regulations.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the characteristics of the enhanced imagery provided by an EFVS. An EFVS image must be real-time, conformal, and sensor-based. Imagery that is computer-generated from a database, such as a synthetic image, cannot be used to conduct an EFVS operation.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the symbology and equipment requirements to be used for EFVS operations to touchdown and rollout (EFVS-TD) operations listed under 14 CFR part 91, § 91.176(a)(1).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the symbology and equipment requirements of an EFVS to be used for EFVS operations to 100 feet above the touchdown zone elevation (TDZE) (EFVS-100) operations listed under § 91.176(b)(1).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the controls for the EFVS image to include display brightness, contrast, and image modes.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the control for turning the EFVS image on or off. This control is important, because if the sensor imagery were to obscure the pilot's view of the outside scene, the pilot should have a readily available means to immediately remove the sensor imagery from the Head-Up Display (HUD). However, in order to continue an EFVS operation, the pilot should reactivate the image as soon as possible.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain how computer-generated synthetic elements are presented in the image, if applicable. Some systems may integrate synthetic vision elements into the image displayed on the HUD. A pilot should be able to differentiate between the sensor-based elements and the computer-generated elements.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) explain the runway and extended runway centerline symbology presented during the approach phase.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the field of view (FOV) of the EFVS display.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can explain the imaging technology of the EFVS sensor and the related limitations (i.e., light detection, obstacle detection, weather types, and FOV). The AFM(S) may specify any limitations or demonstrated performance applicable to the installed EFVS. An EFVS can display imagery that may significantly improve a pilot's capability to detect approach lights and visual references of the runway environment that may not otherwise be visible using natural vision. Not all EFVS sensors have the same imaging capabilities. Some sensors may image particular materials and some may focus in specific energy spectrums. Some sensor technologies are more affected by certain weather conditions (e.g., obscurations and precipitation). Some systems utilize multiple sensors to combine the benefits from different technologies.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can demonstrate an overview on interpreting a sensor-generated scene presented by the EFVS. Images may have characteristics and contain artifacts that are unique to the sensor technology, EFVS image processing software, or display characteristics (i.e., monochrome colors). An external scene generated from infrared technology may be different from a scene generated from another technology or combination of technologies.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can demonstrate an overview of image anomalies of the installed EFVS. Anomalies such as "noise," "blooming," parallax, and other visual effects may be more prevalent in different EFVS installations.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of flight planning considerations for sensor performance and limitations.
Avionics and	Understand EFVS Operations	Per § 61.66(a)(2)(v) can explain the optimal EFVS settings for different phases of flight and meteorological conditions.

Communications		
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of techniques for identifying visual references with natural vision at 100 feet above the TDZE for EFVS-100 operations. There may be several techniques that crews can use to ensure that visual references are seen with natural vision while continuing to use the EFVS image. It is important that these techniques do not reinforce deactivating the EFVS image more than momentarily during the EFVS operation.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of considerations for conducting EFVS operations with a limited EFVS FOV. A combination of crosswind correction, approach course offset, and the lateral FOV may result in the inability of the pilot to acquire and maintain visual references.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of considerations for executing a go-around below a DA/DH or MDA. Whether a pilot is using an EFVS or natural vision, obstacle clearance should not be assumed when initiating a go-around below a DA/DH or MDA or after the missed approach point. The missed approach procedure should be thoroughly briefed and accurately flown, and may need additional climb performance beyond the standard 200 feet per nautical mile to ensure adequate obstacle clearance.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of the considerations for visual segment obstacle clearance. Pilots using an EFVS should be careful not to conclude that the flightpath is free of obstacles because no obstacles are distinctly visible in the EFVS image. The approach procedure should be thoroughly briefed and accurately flown.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of the considerations for conducting EFVS operations on special instrument approach procedures (IAP). Operators that have a specific approval from the FAA to conduct instrument approaches using special IAPs should evaluate those instrument procedures to determine their compatibility with EFVS operations. These procedures may have nonstandard features or special conditions that may not be compatible with EFVS operations or the performance of an EFVS sensor.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of the considerations for conducting taxi operations after conducting an EFVS operation. Once the EFVS operation is complete, the pilot may have to taxi at an airport with Low-Visibility Operations (LVO)/Surface Movement Guidance and Control System (SMGCS) operations in effect. Although an EFVS may provide some increased situation awareness during taxi operations, natural vision is still essential.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vi) can demonstrate an overview of the effect of obscuration types, precipitation conditions, and low ceilings or cloud layers as contributing factors to the variable and unpredictable characteristics of EFVS sensor performance or EFVS sensor and image quality.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vi) demonstrate an overview of visibility reporting equipment (e.g., Runway Visual Range (RVR), automated surface observing system (ASOS), and Automated Weather Observing System (AWOS)) and their limitations, reporting increments, and relationship to actual flight visibility on the approach.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the operational concepts and the procedures used in EFVS-TD operations, as applicable.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the operational concepts and the procedures used in EFVS-100 operations, as applicable.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following system preflight and in-flight procedures: a. An integrity check of the sensor window.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following system preflight and in-flight procedures: b. System tests and warmup time.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following system preflight and in-flight procedures: c. System control adjustments, to include appropriate setting of EFVS contrast, brightness, and symbology.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following system preflight and in-flight procedures: d. EFVS image alignment procedures with the natural vision image.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: a. Callouts for continuing descent below the DA/DH or MDA using the EFVS.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: b. Callouts for transition from enhanced image to natural vision at 100 feet above the TDZE during an EFVS-100 operation.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: c. Callouts to clearly communicate the decision to land or go around.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: d. Callouts for abnormal EFVS operations.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: a. Expectations of system performance and limitations in reported weather conditions and a minimum visibility for the use of an EFVS (if applicable).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: b. EFVS callouts.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following items to be briefed prior to initiating an approach using the EFVS: c. Other approach considerations that may affect EFVS operations such as final approach offsets and ground infrastructure.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: d. Missed approach considerations and procedure.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following items to be briefed prior to initiating an approach using the EFVS: e. The taxi operation considerations in reported weather conditions.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the PM use of the repeater display during EFVS-TD operations. The PM uses the display to assess the safe conduct of the approach, landing, and rollout, and intervene, if necessary, in visibilities where natural vision may not be sufficient.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the procedure used for determining minimum visibility for use of EFVS for the purpose of releasing the flight or executing an approach, as applicable.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can demonstrate an overview of techniques for identifying EFVS system failures and corresponding procedures. A proper cross-check of the HUD instrumentation presentations against the EFVS sensor image could help recognize malfunctions of the navigation equipment or improper presentation of elements in the visual scene during the approach. In the event any required component fails during an EFVS operation until touchdown, the PF should initiate a go-around. However, this does not preclude a pilot's authority to continue to a landing and rollout if the pilot considers that a safer course of action.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(viii) can integrate the following: it is necessary for the pilot training curriculum to include the interpretation of approach and runway lighting systems and their display characteristics when using an EFVS. This could be accomplished by including an overview of different light sources used in airport and approach lighting systems and the ability of the EFVS to detect them. An EFVS based only on infrared sensor technology may not be capable of imaging light-emitting diode (LED) lighting because energy is not emitted in an infrared spectrum. It is important that pilots are familiar with the potential use of LEDs at their destination and any corresponding limitations of their EFVS. For more information, please refer to Information for Operators (InFO) 11004, Enhanced Flight Vision System (EFVS), Enhanced Vision Systems (EVS), and Night Vision Goggles (NVG) Compatibility with Light-Emitting Diodes (LEDs) at Airports and on Obstacles. You can find InFO 11004 at https://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info.
Avionics and Communications	Understand EFVS Operations	Can explain those portions of this chapter that relate to EFVS flight operations and limitations, including the Airplane Flight Manual or Rotorcraft Flight Manual limitations.

Avionics and Communications	Understand EFVS Operations	Can explain EFVS sensor imagery, required aircraft flight information, and flight symbology.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS display, controls, modes, features, symbology, annunciations, and associated systems and components.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS sensor performance, sensor limitations, scene interpretation, visual anomalies, and other visual effects.
Avionics and Communications	Understand EFVS Operations	Can explain preflight planning and operational considerations associated with using EFVS during taxi, takeoff, climb, cruise, descent and landing phases of flight, including the use of EFVS for instrument approaches, operating below DA/DH or MDA, executing missed approaches, landing, rollout, and balked landings.
Avionics and Communications	Understand EFVS Operations	Can explain weather associated with low visibility conditions and its effect on EFVS performance.
Avionics and Communications	Understand EFVS Operations	Can explain normal, abnormal, emergency, and crew coordination procedures when using EFVS.
Avionics and Communications	Understand EFVS Operations	Can interpret approach and runway lighting systems and their display characteristics when using an EFVS.
Avionics and Communications	Understand EFVS Operations	Can demonstrate an understanding of the applicable EFVS equipment airworthiness requirements for operations to touchdown and rollout. This includes a displayed EFVS sensor image for the pilot monitoring where the symbology does not obscure the runway environment. See 91.176(a)(1)(i)(A) through (F) and (ii) for details.
Avionics and Communications	Understand EFVS Operations	Can ensure the pilot conducting the EFVS operation may not use circling minimums.

Avionics and Communications	Understand EFVS Operations	Each required pilot flightcrew member must demonstrate adequate knowledge of, and familiarity with, the aircraft, the EFVS, and the procedures to be used.
Avionics and Communications	Understand EFVS Operations	Can ensure the aircraft must be equipped with, and the pilot flying must use, an operable EFVS that meets the equipment requirements of paragraph (a)(1) of this section.
Avionics and Communications	Understand EFVS Operations	Ensure when a minimum flightcrew of more than one pilot required, the pilot monitoring must use the display specified in paragraph (a)(1)(ii) to monitor and assess the safe conduct of the approach, landing, and rollout.
Avionics and Communications	Understand EFVS Operations	Can appreciate why the aircraft must continuously be in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal maneuvers.
Avionics and Communications	Understand EFVS Operations	Appreciate why the descent rate must allow touchdown to occur within the touchdown zone of the runway of intended landing.
Avionics and Communications	Understand EFVS Operations	Can ensure a person exercising the privileges of a pilot certificate issued under this chapter, any person serving as a required pilot flightcrew member of a U.S.-registered aircraft, or any person serving as a required pilot flightcrew member for a part 121, 125, or 135 operators, must be qualified in accordance with part 61 and, as applicable, the training, testing, and qualification provisions of subpart K of this part, part 121, 125, or 135 of this chapter that apply to the operation;
Avionics and Communications	Understand EFVS Operations	Can ensure each person acting as a required pilot flightcrew member for a foreign air carrier subject to part 129, or any person serving as a required pilot flightcrew member of a foreign registered aircraft, must be qualified in accordance with the training requirements of the civil aviation authority of the State of the operator for the EFVS operation to be conducted.

Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under this part must conduct the operation in accordance with a letter of authorization for the use of EFVS unless the operation is conducted in an aircraft that has been issued an experimental certificate under § 21.191 of this chapter for the purpose of research and development or showing compliance with regulations, or the operation is being conducted by a person otherwise authorized to conduct EFVS operations under paragraphs (a)(2)(ix) through (xii) of this section. A person applying to the FAA for a letter of authorization must submit an application in a form and manner prescribed by the Administrator.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under part 121, 129, or 135 of this chapter must conduct the operation in accordance with operations specifications authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting an EFVS operation during an authorized Category II or Category III operation must conduct the operation in accordance with operations specifications, management specifications, or a letter of authorization authorizing EFVS operations during authorized Category II or Category III operations.
Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless the pilot determines that the enhanced flight visibility observed by use of an EFVS is not less than the visibility prescribed in the instrument approach procedure being used.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless from the authorized DA/DH to 100 feet above the touchdown zone elevation of the runway of intended landing, any approach light system or both the runway threshold and the touchdown zone are distinctly visible and identifiable to the pilot using an EFVS. (A) The pilot must identify the runway threshold using at least one of the following visual references - (1) The beginning of the runway landing surface; (2) The threshold lights; or (3) The runway end identifier lights. (B) The pilot must identify the touchdown zone using at least one of the following visual references - (1) The runway touchdown zone landing surface; (2) The touchdown zone lights; (3) The touchdown zone markings; or (4) The runway lights.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless at 100 feet above the touchdown zone elevation of the runway of intended landing and below that altitude, the enhanced flight visibility using EFVS must be sufficient for one of the following visual references to be distinctly visible and identifiable to the pilot - (A) The runway threshold; (B) The lights or markings of the threshold; (C) The runway touchdown zone landing surface; or (D) The lights or markings of the touchdown zone.
Avionics and Communications	Understand EFVS Operations	Can explain the Administrator may prescribe additional equipment, operational, and visibility and visual reference requirements to account for specific equipment characteristics, operational procedures, or approach characteristics. These requirements will be specified in an operator's operations specifications, management specifications, or letter of authorization authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can demonstrate an understanding of the applicable EFVS equipment airworthiness requirements for operations to 100 feet above the touchdown zone. See 91.176(a)(1)(i)(A) through (F) for details; however, a flare prompt, flare guidance, or height above ground level need not be present for operations to 100 feet above the touchdown zone.
Avionics and Communications	Understand EFVS Operations	Can ensure the pilot conducting the EFVS operation may not use circling minimums.

Avionics and Communications	Understand EFVS Operations	Each required pilot flightcrew member must demonstrate adequate knowledge of, and familiarity with, the aircraft, the EFVS, and the procedures to be used.
Avionics and Communications	Understand EFVS Operations	Can ensure the aircraft must be equipped with, and the pilot flying must use, an operable EFVS that meets the equipment requirements of paragraph (b)(1) of this section.
Avionics and Communications	Understand EFVS Operations	Appreciate why the aircraft must continuously be in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal maneuvers.
Avionics and Communications	Understand EFVS Operations	Can appreciate why for operations conducted under part 121 or part 135 of this chapter, the descent rate must allow touchdown to occur within the touchdown zone of the runway of intended landing
Avionics and Communications	Understand EFVS Operations	Ensure a person exercising the privileges of a pilot certificate issued under this chapter, any person serving as a required pilot flightcrew member of a U.S.-registered aircraft, or any person serving as a required pilot flightcrew member for a part 121, 125, or 135 operators, must be qualified in accordance with part 61 and, as applicable, the training, testing, and qualification provisions of subpart K of this part, part 121, 125, or 135 of this chapter that apply to the operation;
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under part 121, 129, or 135 of this chapter must conduct the operation in accordance with operations specifications authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting an EFVS operation during an authorized Category II or Category III operation must conduct the operation in accordance with operations specifications, management specifications, or a letter of authorization authorizing EFVS operations during authorized Category II or Category III operations.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless the pilot determines that the enhanced flight visibility observed by use of an EFVS is not less than the visibility prescribed in the instrument approach procedure being used.
Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless from the authorized MDA or DA/DH to 100 feet above the touchdown zone elevation of the runway of intended landing, any approach light system or both the runway threshold and the touchdown zone are distinctly visible and identifiable to the pilot using an EFVS. (A) The pilot must identify the runway threshold using at least one of the following visual references- (1) The beginning of the runway landing surface; (2) The threshold lights; or (3) The runway end identifier lights. (B) The pilot must identify the touchdown zone using at least one of the following visual references - (1) The runway touchdown zone landing surface; (2) The touchdown zone lights; (3) The touchdown zone markings; or (4) The runway lights.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless at 100 feet above the touchdown zone elevation of the runway of intended landing and below that altitude, the flight visibility must be sufficient for one of the following visual references to be distinctly visible and identifiable to the pilot without reliance on the EFVS - (A) The runway threshold; (B) The lights or markings of the threshold; (C) The runway touchdown zone landing surface; or (D) The lights or markings of the touchdown zone.
Avionics and Communications	Understand EFVS Operations	Can consider the compliance date. Beginning on March 13, 2018, a person conducting an EFVS operation to 100 feet above the touchdown zone elevation must comply with the requirements of paragraph (b) of this section.
Avionics and Communications	Understand EFVS Operations	Can determine the recommended EFVS Operational Credit capability for their make/model and possibly serial number for their aircraft using Appendices 1 and 2.
Avionics and Communications	Understand EFVS Operations	Can appreciate the EFVS Operational Credit Tables in Appendix 3 for risk management under Part 91 operations or compliance for air carrier operations.
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Powerplant	Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations without APU
Powerplant	Understand Powerplant - turbine wheels	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - turbine wheels	Can explain system or component limitations

Powerplant	Understand Powerplant - turbine wheels	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - turbine wheels	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - turbine wheels	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Powerplant	Understand Powerplant - turbine wheels	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - allowable types of oil	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - allowable types of oil	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - allowable types of oil	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Powerplant	Understand Powerplant - compressors	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - compressors	Can explain system or component limitations
Powerplant	Understand Powerplant - compressors	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - compressors	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - compressors	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Powerplant	Understand Powerplant - compressors	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - controls and indications	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - controls and indications	Can explain system or component limitations
Powerplant	Understand Powerplant - controls and indications	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - controls and indications	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - controls and indications	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Powerplant	Understand Powerplant - controls and indications - Engine Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - controls and indications - Pylon Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - deicing, anti-icing	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - deicing, anti-icing	Can explain system or component limitations
Powerplant	Understand Powerplant - deicing, anti-icing	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Powerplant	Understand Powerplant - deicing, anti-icing	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - deicing, anti-icing	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Powerplant	Understand Powerplant - deicing, anti-icing	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Oil System	Understand Powerplant - allowable types of oil	Can describe the operation of the airplane systems and components using correct terminology
Oil System	Understand Powerplant - allowable types of oil	Can explain system or component limitations
Oil System	Understand Powerplant - allowable types of oil	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oil System	Understand Powerplant - oil system capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology
Oil System	Understand Powerplant - oil system capacity and quantities	Can explain system or component limitations
Oil System	Understand Powerplant - oil system capacity and quantities	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oil System	Understand Powerplant - oil system capacity and quantities	Can explain immediate action items or memory items, if appropriate
Oil System	Understand Powerplant - oil system capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Oil System	Understand Powerplant - oil system capacity and quantities	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Thrust Reverse	Understand Powerplant - thrust reverse	Can describe the operation of the airplane systems and components using correct terminology
Thrust Reverse	Understand Powerplant - thrust reverse	Can explain system or component limitations
Thrust Reverse	Understand Powerplant - thrust reverse	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Thrust Reverse	Understand Powerplant - thrust reverse	Can explain immediate action items or memory items, if appropriate
Thrust Reverse	Understand Powerplant - thrust reverse	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Thrust Reverse	Understand Powerplant - thrust reverse - Dispatch With Inoperative Thrust Reverser(s) On Wet Runways procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Thrust Reverse	Understand Powerplant - thrust reverse - Thrust Reverser Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Thrust Reverse	Understand Powerplant - thrust reverse - Thrust Reverser Manual Stow Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Fuel System	Understand Fuel system - additives	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - additives	Can explain system or component limitations

Fuel System	Understand Fuel system - additives	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - additives	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - additives	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - additives	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - capacity and quantities	Can explain system or component limitations
Fuel System	Understand Fuel system - capacity and quantities	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - capacity and quantities	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - capacity and quantities - Fuel Leak In Flight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - capacity and quantities - low fuel state procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - controls and indicators	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - controls and indicators	Can explain system or component limitations

Fuel System	Understand Fuel system - controls and indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - controls and indicators	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - controls and indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - controls and indicators - Fuel Tank Temperature procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - cross-feeding	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - cross-feeding	Can explain system or component limitations
Fuel System	Understand Fuel system - cross-feeding	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - cross-feeding	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - cross-feeding	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - cross-feeding	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - drains	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - drains	Can explain system or component limitations
Fuel System	Understand Fuel system - drains	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Fuel System	Understand Fuel system - drains	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - drains	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - drains	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - fuel grade	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - fuel grade	Can explain system or component limitations
Fuel System	Understand Fuel system - fuel grade	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - fuel grade	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - fuel grade	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - fuel grade	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - fuel substitutions	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - fuel substitutions	Can explain system or component limitations
Fuel System	Understand Fuel system - fuel substitutions	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - fuel substitutions	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - fuel substitutions	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Fuel System	Understand Fuel system - fuel substitutions	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - fueling and defueling procedures	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - fueling and defueling procedures	Can explain system or component limitations
Fuel System	Understand Fuel system - fueling and defueling procedures	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - fueling and defueling procedures	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - fueling and defueling procedures	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - fueling and defueling procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - pumps	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - pumps	Can explain system or component limitations
Fuel System	Understand Fuel system - pumps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - pumps	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Fuel System	Understand Fuel system - pumps - fuel boost pump failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - pumps - fuel boost pump failure procedure - Fuel Return Fail Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - transferring	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - transferring	Can explain system or component limitations
Fuel System	Understand Fuel system - transferring	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - transferring	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - transferring	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - transferring	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - capacity	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - capacity	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - capacity	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - capacity	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - capacity	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - capacity	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - pressure	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - pressure	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - pressure	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - pressure	Can explain immediate action items or memory items, if appropriate

Hydraulic System	Understand Hydraulic system - pressure	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - pressure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - pumps	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - pumps	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - pumps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - pumps	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - pumps	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can explain immediate action items or memory items, if appropriate

Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - reservoirs	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - reservoirs	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - reservoirs	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - reservoirs	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - reservoirs	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - reservoirs	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Landing Gear and Brakes	Conduct nosewheel steering - Nosewheel Steering failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Landing Gear and Brakes	Understand Landing Gear - antiskid	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - brakes	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - brakes	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - brakes	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - brakes	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - brakes	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - indicators	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - indicators	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - indicators	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - indicators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can explain immediate action items or memory items, if appropriate

Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - tires	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - tires	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - tires	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - tires	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - tires	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - tires	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Course 2	Tasks	Knowledge & Cognitive Learning Objectives
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain immediate action items or memory items, if appropriate
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices) - Aft Equipment Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices) - Aft Floor Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can describe the operation of the airplane systems and components using correct terminology

Suppression		
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental - Airplane Interior Fire / Smoke / Fumes procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fire and Smoke Detection, Protection and	Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain immediate action items or memory items, if appropriate

Suppression		
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain immediate action items or memory items, if appropriate

Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Flight Controls	Conduct Clean Configuration Stall prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Flight Controls	Conduct Landing Configuration Stall Prevention	Can explain the effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Flight Controls	Conduct Partial Flap Configuration Stall Prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Flight Controls	Conduct Recovery From Unusual Flight Attitudes	Can explain and reference the operating envelope and structural limitations for the airplane
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Envelope protection—angle of attack warning	Can explain system or component limitations

	and protection and speed protection	
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - elevator	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - elevator	Can explain system or component limitations
Flight Controls	Understand Flight Controls - elevator	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - elevator	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - elevator	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - elevator	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Flight Controls	Understand Flight Controls - flaps	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - flaps	Can explain system or component limitations
Flight Controls	Understand Flight Controls - flaps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - flaps	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - flaps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - flaps	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - rudder	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - rudder	Can explain system or component limitations
Flight Controls	Understand Flight Controls - rudder	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - rudder	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - rudder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - rudder	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - speed brakes	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - speed brakes	Can explain system or component limitations
Flight Controls	Understand Flight Controls - speed brakes	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Flight Controls	Understand Flight Controls - speed brakes	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - speed brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - speed brakes	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - spoilers	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - spoilers	Can explain system or component limitations
Flight Controls	Understand Flight Controls - spoilers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - spoilers	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - spoilers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - spoilers - Ground Spoiler Failure Inflight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain system or component limitations
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - Ailerons	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - Ailerons	Can explain system or component limitations
Flight Controls	Understand Flight Controls - Ailerons	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - Ailerons	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - Ailerons	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - Ailerons	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - Other Flight Deck Systems	Can describe Other flight deck systems related to AWO operations (e.g., autobrakes or autospoilers), and any associated limitations, characteristics, or constraints (e.g., touchdown pitch up or pitch down tendency of certain autospoiler or autobrake settings or non-normal conditions, time delays, or auto-deactivation features with go-around)
Flight Controls	Understand Flight Controls - trim systems	Can describe the operation of the airplane systems and components using correct terminology

Flight Controls	Understand Flight Controls - trim systems	Can explain system or component limitations
Flight Controls	Understand Flight Controls - trim systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - trim systems	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - trim systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - trim systems - mach trim failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Ice Protection - anti-ice & de-ice.	Can explain system or component limitations
Flight Controls	Understand Ice Protection - pitot-static system protection	Can explain system or component limitations
Flight Controls	Understand Ice Protection airfoil surfaces	Can explain system or component limitations
Flight Controls	Understand Ice Protection windshield	Can explain system or component limitations
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Pneumatic and Environmental Systems	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain immediate action items or memory items, if appropriate

Pneumatic and Environmental Systems	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can describe the operation of the airplane systems and components using correct terminology
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain system or component limitations
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Pneumatic and Environme	Understand Pneumatic and environmental	Can describe the operation of the airplane systems and components using correct terminology

ntal Systems	system - heating, cooling, ventilation	
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain system or component limitations
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can describe the operation of the airplane systems and components using correct terminology
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can explain system or component limitations
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and	Understand Pneumatic and	Can explain immediate action items or memory items, if appropriate

Environmental Systems	environmental system - pressurization	
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization - Unpressurized Flight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can describe the operation of the airplane systems and components using correct terminology
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can explain system or component limitations
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can describe the operation of the airplane systems and components using correct terminology
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain system or component limitations
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain immediate action items or memory items, if appropriate
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can describe the operation of the airplane systems and components using correct terminology
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain system or component limitations
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain immediate action items or memory items, if appropriate
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**

Ice Protection	Understand ground operations in icing conditions	Can explain that for aircraft type specific procedures, pilots should refer to the aircraft flight manuals or other manufacturer documents developed for that particular type aircraft
Ice Protection	Understand ground operations in icing conditions	Can explain that it is essential that the PIC have a thorough understanding of the deicing and anti-icing process and the approved procedures necessary to ensure that the aircraft is clean for takeoff.
Ice Protection	Understand Ice Protection - anti-ice & de-ice - Ice Shedding Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can describe the operation of the airplane systems and components using correct terminology
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can explain immediate action items or memory items, if appropriate
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Ice Protection	Understand Ice Protection - pitot-static system protection	Can describe the operation of the airplane systems and components using correct terminology
Ice Protection	Understand Ice Protection - pitot-static system protection	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection - pitot-static system protection	Can explain immediate action items or memory items, if appropriate
Ice Protection	Understand Ice Protection - pitot-static system protection	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Ice Protection	Understand Ice Protection airfoil surfaces	Can describe the operation of the airplane systems and components using correct terminology
Ice Protection	Understand Ice Protection airfoil surfaces	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection airfoil surfaces	Can explain immediate action items or memory items, if appropriate
Ice Protection	Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Ice Protection	Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Ice Protection	Understand Ice Protection windshield	Can describe the operation of the airplane systems and components using correct terminology
Ice Protection	Understand Ice Protection windshield	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection windshield	Can explain immediate action items or memory items, if appropriate
Ice Protection	Understand Ice Protection windshield	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Ice Protection	Understand Ice Protection windshield - Windshield Cracked procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Ice Protection	Understand Ice Protection windshield - Windshield Heat Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 2	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Oxygen	Understand Crew and Passenger	Can describe the operation of the airplane systems and components using correct terminology

	Equipment - oxygen system	
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can explain system or component limitations
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can explain immediate action items or memory items, if appropriate
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can describe the operation of the airplane systems and components using correct terminology
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can explain system or component limitations
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can explain immediate action items or memory items, if appropriate

Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system - Inadvertent Oxygen Mask Activation	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system - Overweight Landing procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can describe the operation of the airplane systems and components using correct terminology
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain system or component limitations
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain immediate action items or memory items, if appropriate

Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oxygen	Understand determining performance with an inoperative powerplant for all phases of flight per AFM - Engine Failure Considerations procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Simulator Training Learning Objectives

SIM 1 Learning Objectives

SIM 1 Briefing Items

Tasks	Knowledge & Cognitive Learning Objectives
Understand determining landing performance per AFM	Can explain the parameters and importance of a stabilized approach
Understand determining landing performance per AFM	Can explain the importance of accurate and timely assessments of landing distance
Understand determining landing performance per AFM	Can explain the origin and use of runway Declared Distances
Understand determining landing performance per AFM	Can identify and manage risks associated with runway overruns during the landing
Understand determining landing performance per AFM	Can explain the risks associated with tailwind landings and landings on contaminated runways
Understand determining landing performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining landing performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining landing performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining landing performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Conduct after landing, parking and securing	Can explain parking, shutdown, securing, and postflight inspection.
Conduct Arrival Procedures	Can use standard Terminal Arrival (STAR) charts, U.S. Terminal Procedures Publications, and IFR Enroute High and Low Altitude Charts
Conduct Arrival Procedures	Can use a Flight Management System (FMS) or GPS to follow a STAR

Conduct Arrival Procedures	Can explain two-way radio communication failure procedures during an arrival
Conduct Arrival Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)
Conduct Arrival Procedures	Can explain reasons other than visibility that a go around may suddenly be required
Conduct Arrival Procedures	Can explain the characteristics of a pilot braking action report
Conduct Arrival Procedures	Can explain items to consider when a pilot braking action report is reliable
Conduct Before Takeoff Checks	Can explain the purpose of checking each item during before takeoff checks
Conduct Before Takeoff Checks	Can describe how to detect malfunctions
Conduct Before Takeoff Checks	Can ensure the aircraft is in safe operating condition
Conduct Before Takeoff Checks	Can explain deicing and anti-icing procedures
Conduct Before Takeoff Checks	Can describe how to conduct a proper pre-takeoff contamination check
Conduct Before Takeoff Checks	Can describe how adverse weather conditions effect takeoff performance (e.g., snow, ice, gusting crosswinds, low-visibility)
Conduct Before Takeoff Checks	Can give a before takeoff briefing
Conduct Clean Configuration Stall prevention	Can explain aerodynamics associated with stalls in a clean configuration, to include the relationship between angle of attack, airspeed, load factor, power setting, aircraft weight and balance
Conduct Clean Configuration Stall prevention	Can explain stall characteristics of this aircraft type and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel)
Conduct Clean Configuration Stall prevention	Can explain factors and situations that Can lead to a stall during cruise flight and actions that Can be taken to prevent it
Conduct Clean Configuration Stall prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or

	autothrottle/autothrust, if applicable to the aircraft
Conduct Clean Configuration Stall prevention	Can explain fundamentals of stall recovery
Conduct Clean Configuration Stall prevention	Can explain the effects of altitude on performance (e.g., thrust available) and flight control effectiveness during a recovery
Conduct Departure Procedures	Can explain takeoff minimums
Conduct Departure Procedures	Can explain obstacle Departure Procedure (ODP), including Visual Climb over the Airport (VCOA) and Diverse Vector Area (Radar Vectors)
Conduct Departure Procedures	Can explain Standard Instrument Departures (SID), including RNAV departure
Conduct Departure Procedures	Can explain required climb gradients
Conduct Departure Procedures	Can explain U.S. Terminal Procedures Publications and En Route Charts
Conduct Departure Procedures	Can explain proper use of a Flight Management System (FMS) to follow a DP
Conduct Departure Procedures	Can explain pilot/controller responsibilities, communication procedures, and ATC services available to pilots
Conduct Departure Procedures	Can explain two-way radio communication failure procedures after takeoff
Conduct Departure Procedures	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity)
Conduct Departure Procedures	Can explain communication failure procedures
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can explain declaring an emergency and selection of a suitable airport or landing location

Conduct Go-Around/Rejected Landing	Can describe Proper airborne system use for go-around, including consideration of height loss during transition to a go-around, performance assurance for obstacle clearance, management of any necessary mode changes, and assurance of appropriate vertical and lateral flightpath tracking.
Conduct Go-Around/Rejected Landing	Can explain stabilized approach, to include energy management concepts.
Conduct Go-Around/Rejected Landing	Can explain effects of atmospheric conditions, including wind and density altitude on a go-around or rejected landing.
Conduct Go-Around/Rejected Landing	Can explain wind correction techniques on takeoff/departure and approach/landing.
Conduct Go-Around/Rejected Landing	Can explain situations and considerations on approach that could require a go-around/rejected landing, to include the inability to comply with a LAHSO clearance.
Conduct Go-Around/Rejected Landing	Can explain Go-around/rejected landing procedures, the importance of a timely decision, and appropriate airspeed/V-speeds for the maneuver.
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status
Conduct Interior and exterior preflight	Can explain which items must be inspected per the OEM Manuals using pictorial preflight
Conduct Interior and exterior preflight	Can explain the reasons for checking each item during preflight
Conduct Interior and exterior preflight	Can describe how to detect possible defects
Conduct Interior and exterior preflight	Can explain how to coordinate checklist with crew, if appropriate
Conduct Landing Configuration Stall Prevention	Can explain aerodynamics associated with stalls in the landing configuration, to include the relationship between angle of attack, airspeed, load factor, power setting, aircraft weight and balance, aircraft attitude, and sideslip effects

Conduct Landing Configuration Stall Prevention	Can explain stall characteristics of this aircraft type and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel)
Conduct Landing Configuration Stall Prevention	Can explain factors and situations that Can lead to a stall when configured for landing and actions that Can be taken to prevent it
Conduct Landing Configuration Stall Prevention	Can explain the effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Conduct Landing Configuration Stall Prevention	Can explain fundamentals of stall recovery
Conduct Landing From a Precision Approach	Can recognize significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH.
Conduct Landing From a Precision Approach	Can recognize ground or navigation system faults, failures or abnormalities at any point during the approach and landing.
Conduct Landing From a Precision Approach	Can explain elements related to the pilot's responsibilities, and the environmental, operational, and meteorological factors that affect landing from a precision approach.
Conduct Landing From a Precision Approach	Can explain approach lighting systems and runway and taxiway signs, markings and lighting.
Conduct Missed Approach	Can explain that when executing a missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure

Conduct Missed Approach	Can explain elements related to missed approach procedures to include reference to standby or backup instruments.
Conduct Missed Approach	Can explain limitations associated with standard instrument approaches, including while using an FMS or autopilot, if equipped.
Conduct Normal Approach and Landing	Can explain stabilized approach, to include energy management concepts.
Conduct Normal Approach and Landing	Can explain effects of atmospheric conditions, including wind, on approach and landing performance.
Conduct Normal Approach and Landing	Can explain wind correction techniques on approach and landing.
Conduct Normal Approach and Landing	Can identify airport and runway markings, signs, and lights
Conduct Normal Takeoff and Climb	Can describe the effects of atmospheric conditions, including wind, on takeoff and climb performance
Conduct Normal Takeoff and Climb	Can describe the appropriate V-speeds for takeoff and climb
Conduct Normal Takeoff and Climb	Can describe the appropriate aircraft configuration and power setting for takeoff and climb
Conduct Normal Takeoff and Climb	Can identify airport and runway markings, signs, and lights
Conduct Partial Flap Configuration Stall Prevention	Can explain aerodynamics associated with stalls in a partial flap configuration, to include the relationship between angle of attack, airspeed, load factor, power setting, aircraft weight and balance
Conduct Partial Flap Configuration Stall Prevention	Can explain stall characteristics of this aircraft type and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel)
Conduct Partial Flap Configuration Stall Prevention	Can explain factors and situations that Can lead to a stall during takeoff or while on approach and actions that Can be taken to prevent it
Conduct Partial Flap Configuration Stall Prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft

Conduct Partial Flap Configuration Stall Prevention	Can explain fundamentals of stall recovery
Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations without APU
Conduct Powerplant Start	Can describe normal powerplant start procedures and limitations with APU
Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations without APU
Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations with APU
Conduct Powerplant Start	Can explain procedures for starting engines under various conditions
Conduct Powerplant Start	Can explain possible malfunctions during powerplant start, procedures to address the malfunction, and any associated limitations
Conduct Powerplant Start	Can describe coordinating and communicating with ground personnel for powerplant start, if applicable
Conduct Pushback	Can describe the published OEM pushback procedure for operations with engines not running, starting the right engine during pushback, and both engines running prior to pushback.
Conduct Precision Approach	Can describe normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures
Conduct Precision Approach	Can describe procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.
Conduct Precision Approach	Can recognize the limits of acceptable aircraft position and flightpath tracking during approach, flare and rollout. This should be addressed using appropriate displays or annunciations for either automatic or manual landing systems.

Conduct Precision Approach	Can identify nearby critical terrain or obstruction environment;
Conduct Precision Approach	Can explain procedures and limitations associated with a precision approach, including determining required descent rates and adjusting minimums in the case of inoperative equipment.
Conduct Precision Approach	Can explain navigation system displays, annunciations, and modes of operation.
Conduct Precision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).
Conduct Precision Approach	Can explain stabilized approach criteria, to include energy management concepts.
Conduct Recovery From Unusual Flight Attitudes	Can explain procedures for recovery from unusual attitudes in this aircraft type
Conduct Recovery From Unusual Flight Attitudes	Can explain unusual flight attitude causal factors, including physiological factors, system and equipment failures, and environmental factors
Conduct Recovery From Unusual Flight Attitudes	Can explain and reference the operating envelope and structural limitations for the airplane
Conduct Recovery From Unusual Flight Attitudes	Can explain the effects of engine location, wing design, and other specific design characteristics that could affect aircraft control during the recovery in this aircraft type
Conduct Steep Turns	Can explain energy management required during steep turns
Conduct Steep Turns	Can explain aerodynamics associated with steep turns, to include: Coordinated and uncoordinated flight
Conduct Steep Turns	Can explain aerodynamics associated with steep turns, to include: Overbanking tendencies as relevant to this aircraft type
Conduct Steep Turns	Can explain maneuvering speed, including the impact of weight changes
Conduct Steep Turns	Can explain load factor and accelerated stalls as relevant to this aircraft type
Conduct Steep Turns	Can explain relationship between rate and radius of turn

Conduct Taxi	Can explain the information available on an airport diagram, chart supplement and NOTAMS
Conduct Taxi	Can interpret taxi instructions including published taxi routes
Conduct Taxi	Can identify airport and runway markings, signs, and lights
Conduct Taxi	Can describe proper procedures for entering or crossing runways
Conduct Taxi	Can explain procedures for taxi on one engine
Conduct Taxi	Can explain the hazards of low visibility taxi operations
Conduct Taxi	Can describe appropriate aircraft lighting for day and night operations
Conduct Taxi	Can describe appropriate flight deck activities prior to taxi, including route planning, identifying the location of Hot Spots, and coordinating with crew
Conduct Taxi	Can identify The runway and taxiway characteristics concerning width, safety areas, obstacle free zones, markings, hold lines, signs, holding spots, runway slope, suitability of threshold crossing height (TCH), critical area protection, taxiway position markings, runway distance remaining markings, runway distance remaining signs, and LVO/SMGCS should be addressed.
Conduct Taxi	Can explain the definition of a runway incursion: Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
Conduct Taxi	Can explain why thorough planning for taxi operations is essential for a safe operation

Conduct Taxi	Can conduct briefing of the expected taxi route to include any hold short lines and runways to cross, hot spots, and any other potential conflicts. (Once taxi instructions are received, the pretaxi route should be reviewed and monitored. It is essential that any changes to the taxi route be understood by all crewmembers)
Conduct Taxi	Can identify critical locations on the taxi route, where verbal coordination between the PIC and the SIC is important to avoid a runway incursion. (e.g., hot spots/complex intersections, crossing intervening runways, entering and lining up on the runway for takeoff, and approaching and lining up on the runway for landing)
Conduct Taxi	Can conduct briefing of requirements and special considerations during low visibility operations such as: the low visibility taxi chart, if published for the airport
Conduct Taxi	Can maintain knowledge of the aircraft's precise position throughout the taxi operation and mentally calculate the next location on the route that will require increased attention (e.g., a turn onto another taxiway, an intersecting runway, or hot spots)
Conduct Taxi	Can interpret and use all visual aids, and signage and lighting on the airport surface
Conduct Taxi	Can write down complex taxi instructions or copy taxi instructions into the scratch pad of the CDU
Conduct Taxi	Can explain that before entering a runway for takeoff, the flightcrew should verbally coordinate to ensure correct flap setting, identification of the runway, compass heading, FMC entry, and receipt of the proper ATC clearance to use that runway

Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can differentiate between "substitute means of navigation" and "alternate means of navigation"
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that RNAV systems using GPS input may be used as an alternate means of navigation without restriction.
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain RAIM prediction requirements when using GPS as a substitute means of navigation
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that RNAV systems using WAAS input may be used as an alternate means of navigation without restriction.
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that operators planning to use TSO-C145/-C146 equipment as a substitute means of navigation must check WAAS NOTAMs and confirm WAAS availability for the applicable operation and time
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that RNAV systems using DME/DME/IRU, without GPS input, may be used as an alternate means of navigation where valid DME/DME position updating is published as available (for example, by NOTAM or authorization).

Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that In order to use a substitute means of navigation on departure procedures, pilots of aircraft with RNAV systems using DME/DME/IRU, without GPS input, must ensure their aircraft navigation system position is confirmed, within 1,000 feet, at the start point of takeoff roll. The use of an automatic or manual runway update is an acceptable means of compliance with this requirement. A navigation map display may also be used to confirm aircraft position, if pilot procedures and display resolution allow for compliance with the 1,000-foot tolerance requirement.
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain the definition of Alternate Means of Navigation
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can state the definition of RAIM
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain the definition of Substitute Means of Navigation
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can describe the ways in which a suitable RNAV system may be used
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that the ways in which a suitable RNAV system may be used still apply, even when a facility is identified as required

Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that unless otherwise specified, an otherwise suitable RNAV system cannot be used for navigation on procedures that are identified as not authorized by notam. (For example, an operator may not use a RNAV system to navigate on a procedure affected by an expired or unsatisfactory flight inspection, or a procedure that is based upon a recently decommissioned NAVAID)
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that an otherwise suitable RNAV system cannot be used for substitution of the NAVAID providing lateral guidance for the final approach segment
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that an otherwise suitable RNAV system cannot be used for Lateral navigation on LOC-based courses (including LOC back-course guidance) without reference to raw LOC data
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that AFM guidelines supersede all other information
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that The navigation data should be current for the duration of the flight. If the Aeronautical Information Regulation and Control (AIRAC) cycle will change during flight, operators and pilots should establish procedures to ensure the accuracy of navigation data, including suitability of navigation facilities used to define the routes and procedures for flight. Traditionally, this has been accomplished by verifying electronic data against paper products

Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that Pilots must extract waypoints, NAVAIDs, and fixes by name from the onboard navigation database and comply with the charted procedure or route
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that pilots may not manually enter published procedure or route waypoints via latitude/longitude, place/bearing, or place/bearing/distance into the aircraft system
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that Pilots are expected to accurately track procedure and route centerlines (CL), as depicted by onboard lateral deviation indicators (LDI), displays, and/or flight guidance during all operations described in this AC unless otherwise authorized to deviate by air traffic control (ATC) or in the instance of an emergency condition
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that Operators operating under parts 91K, 121, 125, 129, and 135 must also be equipped with at least one other independent navigation system in addition to an installed and operable RNAV system. This additional system must be suitable, in the event of loss of navigation capability of the RNAV system, for proceeding safely to a suitable airport and completing an instrument approach.
Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that ADF equipment need not be installed and operational, although operators of aircraft without an ADF will be bound by the operational requirements defined in AC 90-108 and not have access to some procedures (that is, there may be instances when some operations might not be conducted without ADF equipment).

Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that for the purposes of flight planning, any required alternate airport must have an available IAP that does not require the use of GPS.
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain system or component limitations
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - autopilot	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - autopilot	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - autopilot	Can explain system or component limitations
Understand Avionics and communications - autopilot	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Understand Avionics and communications - autopilot	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - autopilot	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - autopilot	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - autopilot	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite) - Radio Failure / Mistune During A Dual Coupled ILS Approach	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).
Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable

Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain system or component limitations
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain the features of the PlaneView System
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the functional characteristics of the cursor control device
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Crew Alerting System (CAS) Caution Messages and Procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Synthetic Vision-Primary Flight Display Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - emergency locator transmitter.	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - emergency locator transmitter.	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - emergency locator transmitter.	Can explain system or component limitations
Understand Avionics and communications - emergency locator transmitter.	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Understand Avionics and communications - emergency locator transmitter.	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - emergency locator transmitter.	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - Flight Management System (FMS)	Can explain that DPs and STARs are flown as RNAV 1 procedures. RNAV routes are flown as RNAV 2 unless otherwise specified
Understand Avionics and communications - Flight Management System (FMS)	Can explain that at system initialization, pilots must confirm the navigation database is current and verify the aircraft's present position.
Understand Avionics and communications - Flight Management System (FMS)	Can explain that RNAV DPs and STAR procedures must be retrieved by procedure name from the onboard navigation database and conform to the charted procedure
Understand Avionics and communications - Flight Management System (FMS)	Can explain that whenever possible, RNAV routes should be extracted from the database in their entirety, rather than loading RNAV route waypoints from the database into the flight plan individually. Selecting and inserting individual, named fixes from the database is permitted, provided all fixes along the published route to be flown are inserted
Understand Avionics and communications - Flight Management System (FMS)	Can explain that manual entry of waypoints using latitude/longitude or place/bearing is not permitted
Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots must not change any RNAV DP or STAR database waypoint type from a flyby to a flyover or vice versa.

Understand Avionics and communications - Flight Management System (FMS)	Can explain that flightcrews should crosscheck the cleared flight plan against charts or other applicable resources, as well as the navigation system textual display and the aircraft map display, if applicable
Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verification of assigned route and correct entry of transitions into RNAV System/FMS
Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verifying their aircraft navigation system is operating correctly and the correct runway and DP (including any applicable en route transition) are entered and properly depicted prior to flight
Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verifying proper entry of their ATC assigned route upon initial clearance and after any subsequent change of route.
Understand Avionics and communications - Flight Management System (FMS)	Can explain the importance of verifying their aircraft navigation system is operating correctly and the transition and arrival runway is entered and properly displayed
Understand Avionics and communications - Flight Management System (FMS)	Can explain that For DPs, the pilot must be able to engage RNAV equipment to follow flight guidance for lateral RNAV no later than 500 feet above airport elevation.
Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots must use a lateral deviation indicator (or equivalent navigation map display), flight director and/or autopilot in lateral navigation mode on RNAV 1 routes. The full-scale course deviation indicator (CDI) deflection value of ±1 NM is acceptable
Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots of aircraft without GPS/GNSS, using DME/DME/IRU, must ensure the aircraft navigation system position is confirmed, within 1,000 feet, at the start point of takeoff roll. The use of an automatic or manual runway update is an acceptable means of compliance with this requirement. A navigation map may also be used to confirm aircraft position, if

	pilot procedures and display resolution allow for compliance with the 1,000-foot tolerance requirement
Understand Avionics and communications - Flight Management System (FMS)	Can describe the depiction of waypoint types (flyover and flyby) and path terminators
Understand Avionics and communications - Flight Management System (FMS)	Can describe the required navigation equipment for operation on RNAV routes, DPs, and STARs (for example, DME/DME/IRU and GPS/GNSS)
Understand Avionics and communications - Flight Management System (FMS)	Can describe system specific levels of automation, mode annunciations, mode changes, alerts, interactions, reversions and degradation
Understand Avionics and communications - Flight Management System (FMS)	Can describe the functional interaction with other aircraft systems
Understand Avionics and communications - Flight Management System (FMS)	Can describe the meaning and appropriateness of route discontinuities as well as related flightcrew procedures
Understand Avionics and communications - Flight Management System (FMS)	Can describe the monitoring procedures for each phase of flight (for example, monitor PROG or LEGS page)
Understand Avionics and communications - Flight Management System (FMS)	Can explain the types of navigation sensors (for example, DME, IRU, GPS/GNSS) utilized by the RNAV system and associated system prioritization/weighting/logic
Understand Avionics and communications - Flight Management System (FMS)	Can explain turn anticipation regarding speed and altitude effects
Understand Avionics and communications - Flight Management System (FMS)	Can describe proper interpretation of electronic displays and symbols
Understand Avionics and communications - Flight Management System (FMS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - Flight Management System (FMS)	Can describe the operation of the airplane systems and components using correct terminology

Understand Avionics and communications - Flight Management System (FMS)	Can explain system or component limitations
Understand Avionics and communications - Flight Management System (FMS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Flight Management System (FMS)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Flight Management System (FMS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - Flight Management System (FMS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - Flight Management System (FMS) - FMS Powers Up In Single or Independent Mode procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that the onboard navigation data must be current and appropriate for the region of intended operation and must include the navigation aids, waypoints, and relevant coded terminal airspace procedures for the departure, arrival, and alternate airfields.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that the pilot must notify ATC of any loss of the RNAV capability, together with the proposed course of action. If unable to comply with the requirements of an RNAV procedure, pilots must advise ATC as soon as possible.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that RNAV 1 requires a total system error of not more than 1 nautical mile (NM) for 95 percent of the total flight time.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that RNAV 2 requires a total system error of not more than 2 NM for 95 percent of the total flight time

Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that Receiver Autonomous Integrity Monitoring (RAIM) is a technique used within a GPS receiver/processor to monitor GPS signal performance and is achieved by a consistency check among redundant measurements.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that an Instrument Departure Procedure (DP) is a published instrument flight rules (IFR) procedure providing obstruction clearance from the terminal area to the en route structure.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that there are two types of DPs: Standard Instrument Departures (SIDs) and Obstacle Departure Procedures (ODPs)
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that a SID is a published IFR air traffic control (ATC) DP providing obstacle clearance and a transition from the terminal area to the en route structure.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that SIDs are primarily designed for air traffic system enhancement to expedite traffic flow and to reduce pilot/controller workload.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that ODPs are recommended for obstruction clearance and may be flown without ATC clearance unless an alternate DP (SID or radar vector) has been specifically assigned by ATC.
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that a Standard Terminal Arrival (STAR) is a published IFR ATC arrival procedure that provides a transition from the en route structure to the terminal area
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that an RNAV route within the high or low altitude structure of the contiguous United States, is designated by a "Q" or "T"
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that operation on U.S. RNAV routes, DPs and STARs relies on normal descent profiles and identifies minimum segment altitude requirements

Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that pilots operating aircraft with an approved barometric vertical navigation (baro-VNAV) system may continue to use their baro-VNAV system while executing U.S. RNAV routes, DPs, and STARs, however operators must ensure compliance with all altitude constraints as published in the procedure by reference to the barometric altimeter
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that operation on U.S. RNAV routes, DPs and STARs does not require the pilot to monitor ground-based Navigational Aids (NAVAID) used in position updating unless required by the Airplane Flight Manual (AFM), pilot's operating handbook (POH), or the operating manual for their avionics
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that operation on U.S. RNAV routes, DPs and STARs bases obstacle clearance assessments on the associated required RNAV system performance
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain system or component limitations
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Avionics and communications - Global Navigation Satellite System (GNSS) - GPS / SBAS Reception Loss During RNAV (GPS) Approach to Minima procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe the performance requirement and the fail-down capabilities of the system
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe alternate airport requirements and selection of an alternate airport.
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe the meaning and proper use of aircraft equipment/navigation suffixes
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can explain instrument procedure characteristics as determined from chart depiction and textual description
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can state that manual change of waypoints included in the approach is prohibited
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can differentiate between ILS flight guidance cues and LPV guidance cues
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can obtain required navigation equipment for approach operations using WAAS or any operational restrictions/limitations, as outlined in the AFM, RFM, AFMS, OpSpec, MSpec, or LOA.

Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe levels of automation, mode annunciations, changes, alerts, interactions, reversions, and degradations.
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe functional integration with other aircraft systems
Understand Avionics and communications - ground-based navigation systems and components	Can describe The navigation systems to be used, such as the instrument landing system (ILS) with its associated critical area protection criteria, marker beacons, distance measuring equipment (DME), compass locators, or other relevant systems should be addressed to the extent necessary for safe operations. For Ground Based Augmentation System (GBAS) Landing System (GLS)), any characteristics or constraints regarding that method of navigation must be addressed (e.g., proper procedure waypoint selection and use, integrity assurance, loss of satellite availability or failure, terrain masking).
Understand Avionics and communications - ground-based navigation systems and components	Can identify Visual aids including Approach Lighting Systems (ALS), runway lighting systems, markings/lighting associated with declared distances, taxiway lighting, color coding of the centerline lighting for distance remaining, Low-Visibility Operations (LVO)/Surface Movement Guidance and Control System (SMGCS) lighting, and any other lighting systems relevant to an AWO environment should be addressed.
Understand Avionics and communications - ground-based navigation systems and components	Can identify automatic or perform manual input requiring parameters, such as inbound course or automatic/manually tuned navigation frequencies, the importance of checking that proper selections have been made to ensure appropriate system performance, and the

	sequence and management of any mode changes.
Understand Avionics and communications - ground-based navigation systems and components	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - ground-based navigation systems and components	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - ground-based navigation systems and components	Can explain system or component limitations
Understand Avionics and communications - ground-based navigation systems and components	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - ground-based navigation systems and components	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - ground-based navigation systems and components	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and Communications - HUD	Can identify all HUD symbology
Understand Avionics and Communications - HUD	Can explain the FPV
Understand Avionics and Communications - HUD	Can explain non-conformal LDI
Understand Avionics and Communications - HUD	Can recognize unusual attitudes when using the HUD

Understand Avionics and Communications - HUD	Can describe crew coordination when using the HUD
Understand Avionics and Communications - HUD	Can describe crew briefings and callouts
Understand Avionics and Communications - HUD	Can describe duties of the pilot flying and pilot monitoring when using HUD
Understand Avionics and Communications - HUD	Can interpret HUD II symbology including caged FPV, non-conformal LDI, and unusual attitudes
Understand Avionics and communications - indicating devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - indicating devices	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - indicating devices	Can explain system or component limitations
Understand Avionics and communications - indicating devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - indicating devices	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - indicating devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - indicating devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - indicating devices	Can interpret PFD mode annunciations
Understand Avionics and communications - indicating devices - (EVS) Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - indicating devices - (HUD) Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - indicating devices - Charts Function DU 2 and 3 Inoperative procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Avionics and communications - indicating devices - Charts Function Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - indicating devices - Equipment Loss While in RVSM Airspace procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - indicating devices - Video Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain system or component limitations
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - Inertial Navigation Systems (INS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - Inertial Navigation Systems (INS) - IRS Align In Motion procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and Communications - Instruments	Can interpret situation information displays, as applicable.
Understand Avionics and Communications - Instruments	Can describe proper application of controlling and/or advisory RVR, appropriate runway light settings, and proper determination of RVR values reported at foreign facilities.

Understand Avionics and Communications - Instruments	Can describe proper application of MDA, DA/DH, or AH, including proper use and setting of altimeter bugs, use of the inner marker (IM) where authorized or required due to irregular underlying terrain, and appropriate altimeter setting procedures for the barometric altimeter consistent with the operator’s practice of using either altimeter setting referenced to airport ambient local pressure (QNH) or altimeter setting referenced to airport field elevation (QFE).
Understand Avionics and communications - Radar	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - Radar	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - Radar	Can explain system or component limitations
Understand Avionics and communications - Radar	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - Radar	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - Radar	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - Radar	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - Radar	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe the meaning and proper use of aircraft equipment/navigation capability codes used on the flight plan

Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain instrument procedure characteristics as determined from chart depiction and textual description
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret the depiction of waypoint types (flyover and flyby) as well as associated aircraft flightpaths
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain that a waypoint may be a flyover in one procedure and the same waypoint may also be a flyby in another procedure;
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can list required equipment for RNP operations
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret aircraft automation, mode annunciations, changes, alerts, interactions, reversions, and degradations
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain functional integration with other aircraft systems
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the meaning of route discontinuities and appropriate flightcrew procedures;
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can list the types of navigation sensors used by the RNP system and their annunciations
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain turn anticipation with consideration to speed and altitude effects

Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret electronic displays and symbols
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe appropriate selection of course deviation indicator (CDI) scaling (lateral deviation display scaling)
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the importance of maintaining the published path and maximum airspeeds while performing RNP operations with Radius to Fix (RF) legs (if applicable)
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret the depiction of path terminators, associated aircraft flightpaths, altitude, and speed restrictions
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe flightcrew contingency procedures for a loss of RNP capability; and
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the performance requirement to couple the autopilot (AP)/flight director (FD) to the navigation system's lateral guidance on RNP procedures, if required
Understand Avionics and Communications - Supporting Systems	Can interpret Other associated instrumentation and displays including any head-up display, guidance system, vision system, monitoring displays, status displays, mode annunciation displays, failure or warning annunciations, and associated system status displays that may be relevant. When such airborne systems are used as the basis for category(s) of minima (e.g., HUD or SVGS for Special Authorization (SA) CAT I; AP, F/D, or HUD for CAT I Landing Minima with Reduced Lighting (RVR 1800)), training should address the relationships between

	the various system components and the minima for which they are required.
Understand Avionics and communications - terrain awareness/warning/alert systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - terrain awareness/warning/alert systems	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - terrain awareness/warning/alert systems	Can explain system or component limitations
Understand Avionics and communications - terrain awareness/warning/alert systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - terrain awareness/warning/alert systems	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - terrain awareness/warning/alert systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - terrain awareness/warning/alert systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - terrain awareness/warning/alert systems - (EGPWS) Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - transponder	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - transponder	Can describe the operation of the airplane systems and components using correct terminology

Understand Avionics and communications - transponder	Can explain system or component limitations
Understand Avionics and communications - transponder	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - transponder	Can explain immediate action items or memory items, if appropriate
Understand Avionics and communications - transponder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - transponder	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Avionics and communications - transponder	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight

Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Accelerate-Stop Distance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely decisions in relation V_1
Understand determining accelerate-stop / accelerate-go distance per AFM	Can state the different causes of RTOs
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the difference between Takeoff Distance and Takeoff Run
Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the Balanced Field Concept
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain why V_1 can be no less than V_{MCG} nor can be no more than V_R
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.
Understand determining accelerate-stop / accelerate-go distance per AFM	Can conduct a complete takeoff briefing and explain its importance
Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of timely and correct decisions related to rejected takeoffs (RTO)
Understand determining climb performance per AFM	Can explain why OEI data may not ensure climb gradient compliance nor obstacle clearance

Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for "all engine" or "engine inoperative" missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around procedures, acceleration segments or transition following an engine failure between the specified "all-engine lateral flightpath" (or radar vectors) and any specified "engine-inoperative lateral flightpath," using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.
Understand determining climb performance per AFM	Can explain considerations for OEI departure development
Understand determining climb performance per AFM	Can state the definition of takeoff segment
Understand determining climb performance per AFM	Can state the definitions of gross and net flightpath
Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining climb performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators
Understand determining climb performance per AFM	Can locate FAA TALPA videos online
Understand determining climb performance per AFM	Can describe the segments of an instrument departure procedure

Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures
Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining descent performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining descent performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining descent performance per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining descent performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining fuel requirements per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining fuel requirements per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight

Understand determining fuel requirements per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand Envelope protection—angle of attack warning and protection and speed protection	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Envelope protection—angle of attack warning and protection and speed protection	Can describe the operation of the airplane systems and components using correct terminology
Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain system or component limitations
Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain immediate action items or memory items, if appropriate
Understand Envelope protection—angle of attack warning and protection and speed protection	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Envelope protection—angle of attack warning and protection and speed protection	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Envelope protection—angle of attack warning and protection and speed protection	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Lighting	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Understand Lighting	Can describe the operation of the airplane systems and components using correct terminology
Understand Lighting	Can explain system or component limitations
Understand Lighting	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Lighting	Can explain immediate action items or memory items, if appropriate
Understand Lighting	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Lighting	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Lighting	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define declared runway distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define landing distance available
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define actual landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can interpret and make proper runway condition reports
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "adjusted landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "unfactored (certified) landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "factored landing distance"
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the point at which landing configuration should be established in a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe a stabilized approach profile for both VMC and IMC conditions
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of a stabilized descent rate

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of indicated airspeed during a stabilized approach
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that ATP criteria for touchdown point is the aiming point markings - 250/+500 feet, or where there are no runway aiming point markings 750 to 1,500 feet from the approach threshold of the runway.
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the effect of downhill runway slope on required landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the impact of excess airspeed on landing distance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the purpose and variables involved in a landing performance assessment at time of arrival
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the effect of wind on landing performance
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can identify critical condition combinations that increase risk of a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain proper landing and braking technique
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the difference between AFM dry, certified/approved data and advisory/supplemental data
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can discuss the chain of events that lead to an overrun in this example, and relate it to their own experiences
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can reference applicable regulations for preflight planning
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can calculate the required effective landing distance for dispatch under part 91 and part 135 operations
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain the Can U StoP process
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that factors affecting landing distance are cumulative, and why multiple small errors during landing can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how an unstabilized approach can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how high airport elevation can contribute to a runway overrun

Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excess airspeed can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how airplane landing weight can contribute to an aircraft overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing beyond the intended touchdown point can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how downhill runway slope can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how excessive height over the runway threshold can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how delayed use of deceleration/maximum breaking can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain how landing with a tailwind can contribute to a runway overrun
Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain predeparture planning versus runway condition at time of arrival
Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the difference between the generic samples in table 3-2 where cumulative errors are made, and table 3-3 where errors are not made
Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain how use of published approach guidance in visual conditions can reduce errors
Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the characteristics of effective CRM
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: AP or autothrottle (AT) uncommanded disconnect
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Stall protection/stall warning activation.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: EGPWS alert.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Windshear alert
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear recognition

Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear pilot technique
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff after liftoff
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff while on the runway
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff while on the runway
Understand recognizing and escaping severe weather situations (windshear)	Can define windshear as any rapid change in wind direction or velocity
Understand recognizing and escaping severe weather situations (windshear)	Can define severe windshear as a rapid change in wind direction or velocity causing airspeed changes greater than 15 knots or vertical speed changes greater than 500 feet per minute
Understand recognizing and escaping severe weather situations (windshear)	Can define Increasing Headwind Shear as windshear in which headwind increases, causing an airspeed increase
Understand recognizing and escaping severe weather situations (windshear)	Can define Decreasing Headwind Shear as windshear in which headwind decreases, causing an airspeed loss
Understand recognizing and escaping severe weather situations (windshear)	Can define Increasing Tailwind Shear as windshear in which tailwind increases, causing an airspeed loss
Understand recognizing and escaping severe weather situations (windshear)	Can define Decreasing Tailwind Shear as windshear in which tailwind decreases, causing an airspeed increase
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter on the approach
Understand recognizing and escaping severe weather situations (windshear)	Can discuss takeoff precautions
Understand recognizing and escaping severe weather situations (windshear)	Can discuss approach precautions
Understand recognizing and escaping severe weather situations (windshear)	Can discuss the characteristics of a microburst
Understand recognizing and escaping severe weather situations (windshear)	Can discuss general windshear recovery technique
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear recovery technique after liftoff/on approach
Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear recovery technique during takeoff/on runway
Understand recognizing and escaping severe weather situations (windshear)	Can discuss why other techniques of recovery reduce the chances of survival

Understand Specific Flight Characteristics	Can describe Any aircraft characteristics relevant to all weather operations, such as flight deck visibility cutoff angles and the effect on flight deck visibility of proper eye height, seat position or instrument lighting intensities related to transition through areas of varying brightness levels. Pilots should be aware of the effects on flight visibility related to use of different flap settings, approach speeds, use of various landing or taxi lights, and proper procedures for use of windshield wipers and rain repellent. If windshield defog, anti-ice, or de-icing systems affect forward visibility, pilots should be aware of those effects and be familiar with proper settings for use of that equipment related to low-visibility landing.
Understand Specific Flight Characteristics	Can describe Visual reference information and address aircraft geometry limitations on visual references, actions to take with loss or partial loss of visual references, risks of inappropriate use of visual references, and necessary visual references for continuation after MDA or DA/DH. Issues discussed in Chapter 4, Procedures, for continuation or discontinuation of an approach should be comprehensively addressed.
Understand Specific Flight Characteristics	Can identify expected minimum visual references that occur on approach when the weather is at acceptable minimum conditions as well as the expected sequence of visual cues during an approach in which the visibility is at or above the specified landing minima. Training on this topic should include identifying required visual references over a range of actual or simulated low-visibility

Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Recognition of impending stall indications and understanding of the need to initiate the stall recovery procedure at an impending stall.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Recognition of full stall indication (see paragraph 1-7) with the realization that most swept-wing transport category aircraft exhibit full stall characteristics different from those typically experienced in General Aviation (GA) aircraft used during certification training.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: For airplanes equipped with a stick pusher, recommended recovery actions in response to stick pusher activation.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Avoiding cyclical or oscillatory control inputs to prevent exceeding the structural limits of the airplane.

Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Structural considerations, including explanation of limit load, ultimate load, and the dangers of combining accelerative and rolling moments (i.e., the rolling pull) during recovery.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: The necessity for smooth, deliberate, and positive control inputs to avoid unacceptable load factors and secondary stalls.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: AOA must be reduced prior to controlling roll.
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Effectiveness of control surfaces and the order in which the control surfaces lose and regain their effectiveness (e.g., spoilers, ailerons, etc.).
Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: If a terrain awareness warning system (TAWS) warning is encountered during recovery from a low altitude stall event, recovery from the stall warning

	should take precedence. Once the airplane recovers from the stall event, then execute the TAWS escape maneuver.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: AOA versus pitch angle.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Rate of onset including rate of airspeed decay (both low and high).
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Airplane configuration and condition including weight, center of gravity (CG), landing gear, flaps/slats, spoilers/speed brakes, etc.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Asymmetric loading including thrust asymmetries, wing loading due to roll or yaw transients or uncoordinated flight.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: G loading.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Bank angle.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Thrust and lift vectors.

Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Thrust required versus thrust available.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Wind shear.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Altitude.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Mach effects.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Situational Awareness.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Mode confusion, including unexpected/unannounced mode changes.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Unexpected transition from automated to manual flight.
Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Contamination (ice), including the effect of icing on stall speed and stall warnings.
Understand Stall Prevention and Recovery	Can demonstrate an understanding of AOA indicators (if installed) or interpretation of other representations of AOA such as pitch-limit indicators or speed display symbology that can assist in stall prevention.

Understand Stall Prevention and Recovery	Can explain specific stall and low-speed buffet characteristics unique to the airplane type and any implications for the expected flight operations and airplane-specific stall recovery procedure (e.g., underwing mounted engines, t-tail, propellers, etc.).
Understand Stall Prevention and Recovery	Can describe thrust settings and its application.
Understand Stall Prevention and Recovery	Can describe autothrottle/autothrust protection.
Understand Stall Prevention and Recovery	Can demonstrate awareness of autoflight mode indications.
Understand Stall Prevention and Recovery	Can explain incorrect use of (including input errors) flightpath automated systems.
Understand Stall Prevention and Recovery	Can explain the operation and function of stall protection systems in normal, abnormal, and emergency situations, including the hazards of overriding or ignoring stall protection system indications. Awareness of the factors that may lead such systems to fail, as well as degraded modes, indications, or behaviors that may occur with system failures.
Understand Stall Prevention and Recovery	Can explain buffet boundary and margins in flight planning and operational flying.
Understand Stall Prevention and Recovery	Can explain the lower margins for stall onset and recovery (i.e., coffin corner) and possible buffet cueing differences on the high-speed versus the low-speed margin.
Understand Stall Prevention and Recovery	Can explain the principles of high-altitude aerodynamics, performance capabilities, and limitations; including high altitude operations and flight techniques (i.e., the need to avoid secondary stall by extended nose-down recovery, compared to lower altitudes).
Understand Stall Prevention and Recovery	Can explain the differences in airplane performance (e.g., thrust available) during high versus low altitude operations, the effects of those differences on stall recovery, and the anticipated altitude loss during a recovery.

Understand Stall Prevention and Recovery	Can explain the differences between transport category airplane certification and GA airplane certification regarding use of flight controls at high AOA. For example, if the roll control system is compromised and the ailerons are unable to produce the required roll recovery, the rudder may be used with care during stall prevention and recovery. To maintain structural integrity, it is important to guard against control reversals—avoid rapid full-scale reversal of control deflection
Understand Stall Prevention and Recovery	Can demonstrate general awareness of example events. Although significant emphasis should be placed on preventing stall events, it is important for pilots to understand that, although rare, stall events continue to occur. Studying the causes and contributing factors of stall events give pilots more knowledge to help prevent or if necessary, recover from a stall event. A review of stall-related accidents, incidents, ASAP, FOQA, and ASRS data for the specific airplane type or class should be included in ground training.

Conduct Stall Prevention and Recovery	Can explain the STICK PUSHER. For airplanes equipped with a stick pusher, stall recovery training includes ground training and practical training in an FFS. It is important for pilots to experience the sudden forward movement of the control yoke/stick during a stick pusher activation. From observations, most instructors state that, regardless of previous academic training, pilots usually resist the stick pusher on their first encounter. Usually, they immediately pull back on the control yoke/stick rather than releasing pressure as they have been taught. Therefore, pilots must receive practical stick pusher training in an FFS to develop the proper response (allowing the pusher to reduce AOA) when confronted with a stick pusher activation. Stick pusher training should be completed as a demonstration/practice exercise, including repetitions, until the pilot's reaction is to permit the reduction in AOA even at low altitudes. Pilot response to a deliberate activation of the pusher is not a checked maneuver.

SIM 1 Tasks and Expectations

Tasks	**Motor Skill Learning Objectives**	**Attitude Learning Objectives**	**Task Expectation Rating**
Understand determining landing performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing	High

		Inaccurate use of performance charts, tables, and data	
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining landing performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Conduct after landing, parking and securing	Can demonstrate runway incursion avoidance procedures.		High
Conduct after landing, parking and securing	Can comply with ATC instructions and perform radio calls as appropriate.		High
Conduct after landing, parking and securing	Can coordinate with crew, if applicable, and execute the appropriate checklist(s) after clearing the runway.		High

Conduct after landing, parking and securing	Can perform parking in the appropriate area, considering the safety of nearby persons and property.		High
Conduct after landing, parking and securing	Can execute a postflight inspection and document discrepancies and servicing requirements, if any.		High
Conduct after landing, parking and securing	Can perform securing the airplane.		High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing propeller, turbofan inlet, and exhaust safety.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks, encompassing airport specific security procedures.	High
Conduct after landing, parking and securing		Can identify, assess, and manage risks,	High

		encompassing disembarking passengers.	
Conduct Arrival Procedures		Can manage the risk of errors when assigned a STAR and subsequently receives a change of landing runway, procedure or transition by verifying the appropriate changes are entered and available for navigation	High
Conduct Arrival Procedures	Can select, identify and use the appropriate communication and navigation facilities associated with the arrival		High
Conduct Arrival Procedures	Can perform setup of FMS and avionics to include flight director and autopilot controls for the arrival, if applicable		High
Conduct Arrival Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		High
Conduct Arrival Procedures	Can initiate two-way communications with the proper controlling agency		High
Conduct Arrival Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		High
Conduct Arrival Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		High

Conduct Arrival Procedures	Can comply with all applicable charted procedures		High
Conduct Arrival Procedures	Can comply with airspeed restrictions required by regulation, procedure, aircraft limitation or ATC		High
Conduct Arrival Procedures	Can maintain rate of descent consistent with the route segment, airplane operating characteristics and safety		High
Conduct Arrival Procedures	Can maintain the appropriate airspeed/V-speed ±10 knots, but not less than VRef if applicable, heading ±10°, altitude ±100 feet, and accurately track radials, courses, and bearings		High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures.	High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to recognize limitations of traffic avoidance equipment.	High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing failure to use see and avoid techniques when possible.	High

Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing improper automation management.	High
Conduct Arrival Procedures		Can identify, assess, and manage risks, encompassing ATC instructions that modify an arrival or discontinue/resume the aircraft's lateral or vertical navigation on an arrival.	High
Conduct Before Takeoff Checks		Can manage the risk of errors when assigned an RNAV DP and subsequently receives a change of runway, procedure or transition by verifying the appropriate changes are entered and available for navigation prior to takeoff.	High
Conduct Before Takeoff Checks	Can determine the airplane's takeoff performance for actual conditions and planned departure runway		High

Conduct Before Takeoff Checks	Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		High
Conduct Before Takeoff Checks	Can confirm all systems checked are within an acceptable operating range and are safe for the proposed flight		High
Conduct Before Takeoff Checks	Can explain any system operating characteristic or limitation and any corrective action for a malfunction during the checks		High
Conduct Before Takeoff Checks	Can determine airspeeds/V-speeds and set flight instruments appropriately		High
Conduct Before Takeoff Checks	Can use flight director and autopilot controls for the current flight conditions and takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can perform configuration of navigation equipment for takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can configure communication equipment for takeoff and departure clearances		High
Conduct Before Takeoff Checks	Can obtain and correctly interpret the takeoff and departure clearance		High
Conduct Before Takeoff Checks	Can conduct a briefing that includes procedures for emergency and abnormal situations (e.g., powerplant failure, windshear), which may be encountered during takeoff, and state the planned action if they were to occur		High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing division of attention while	High

		conducting before takeoff checks	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing an unexpected change in the runway to be used for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to verify performance data is correct and airspeeds and flight instruments are set for actual conditions and the departure runway	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to set navigation and communicatio n equipment for departure	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to configure autopilot and flight director	High

		controls for departure	
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to account for adverse weather conditions prior to takeoff (e.g., snow, ice, gusting crosswinds, low-visibility)	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing A powerplant failure during takeoff or other malfunction considering operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions	High
Conduct Before Takeoff Checks		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	High

Conduct Clean Configuration Stall prevention	Can maintain coordinated flight in simulated or actual instrument conditions throughout the maneuver		High
Conduct Clean Configuration Stall prevention	Can perform smooth adjustment of pitch attitude, bank angle (15°-30°), and power setting either manually or with the autopilot engaged		High
Conduct Clean Configuration Stall prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		High
Conduct Clean Configuration Stall prevention	Can execute a stall recovery in accordance with procedures set forth in the POH/AFM		High
Conduct Clean Configuration Stall prevention	Can execute a return to the desired flight path		High
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing factors and situations that could lead to an inadvertent stall, spin, and loss of control during cruise flight	High
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing range and limitations of stall warning indicators (e.g., aircraft buffet, stall horn, stick shaker, etc.)	High

Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing failure to recognize and recover at the stall warning	High
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing improper stall recovery procedure	High
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing secondary stalls, accelerated stalls, elevator trim stalls, and cross-control stalls	High
Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing effect of environmental elements on aircraft performance while in cruise flight as it relates to stalls (e.g., turbulence, microbursts, and high-density altitude)	High

Conduct Clean Configuration Stall prevention		Can identify, assess, and manage risks encompassing distractions, loss of situational awareness, or improper task management	High
Conduct Departure Procedures	Can select the appropriate instrument departure procedure.		High
Conduct Departure Procedures	Can select, identify and use the appropriate communication facilities associated with the procedure		High
Conduct Departure Procedures	Can select, identify and use the appropriate navigation facilities associated with the procedure		High
Conduct Departure Procedures	Can perform programming the FMS prior to departure and execute avionics setup of flight director and autopilot controls for the departure		High
Conduct Departure Procedures	Can use current and appropriate navigation publications or databases for the proposed flight		High
Conduct Departure Procedures	Can initiate two-way communications with the proper controlling agency		High
Conduct Departure Procedures	Can use proper phraseology and comply in a timely manner with all ATC instructions and airspace restrictions		High
Conduct Departure Procedures	Can perform interception of courses, radials, and bearings appropriate to the procedure, route or clearance		High
Conduct Departure Procedures	Can comply with all applicable charted procedures		High

Conduct Departure Procedures	Can maintain the appropriate airspeed ±10 knots, headings ±10°, and altitude ±100 feet, and accurately track a course, radial, or bearing		High
Conduct Departure Procedures	Can execute the departure phase to a point where the transition to the en route environment is complete		High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing failure to communicate with ATC or follow published procedures and required climb gradients	High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing limitations of air traffic avoidance equipment and use of see and avoid techniques	High
Conduct Departure Procedures		Can identify, assess, and manage risks, encompassing improper automation management	High

Conduct EFVS Operations		When using the EFVS, can demonstrate familiarization with the interpretation of the display to ensure proper identification of the runway and positioning of the aircraft relative to continuation of the approach to landing. Pilots should understand the limitations of these systems, operational credits available, and authorization required for use. For more information on EFVS, refer to AC 90-106.	High
Conduct EGPWS Escape Maneuver	Can execute procedure with smoothness and accuracy		High
Conduct EGPWS Escape Maneuver	Can operate the airplane within its limitations		High
Conduct EGPWS Escape Maneuver	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct EGPWS Escape Maneuver		Can apply aeronautical knowledge to execution of the task	High

Conduct EGPWS Escape Maneuver		Can apply crew coordination	High
Conduct EGPWS Escape Maneuver		Can conduct effective communicatio n with the other crew members	High
Conduct EGPWS Escape Maneuver		Can manage crew cooperation	High
Conduct EGPWS Escape Maneuver		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct EGPWS Escape Maneuver		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct EGPWS Escape Maneuver		Can demonstrate good judgement and airmanship	High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can coordinate with crew and execute the appropriate checklist(s) in a timely manner		High
Conduct Emergency Procedure - Flight by reference to standby flight	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High

instruments, backup instrumentation, or partial panel			
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High

Conduct Go-Around/Rejected Landing	Can describe, perform airborne system use for go-around, including consideration of height loss during transition to a go-around, performance assurance for obstacle clearance, management of any necessary mode changes, and assurance of appropriate vertical and lateral flightpath tracking.		High
Conduct Go-Around/Rejected Landing	Can initiate a timely decision to go-around/reject the landing.		High
Conduct Go-Around/Rejected Landing	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		High
Conduct Go-Around/Rejected Landing	Can perform establishing a positive rate of climb and the appropriate airspeed/V-speed, ±5 knots.		High
Conduct Go-Around/Rejected Landing	Can execute configuration and trimming of the airplane, when appropriate.		High
Conduct Go-Around/Rejected Landing	Can perform radio calls as appropriate		High
Conduct Go-Around/Rejected Landing	Can maintain the ground track, heading, or course appropriate for the conditions, or as specified by ATC.		High
Conduct Go-Around/Rejected Landing	Can execute the appropriate procedures and checklist(s) in a timely manner.		High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing delayed recognition of the need for a go-	High

		around/rejected landing.	
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing delayed performance of a go-around at low altitude.	High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing improper application of power.	High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing improper airplane configuration.	High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires vessels, vessels, persons, and wildlife.	High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing low altitude maneuvering	High

		including stall, spin, or CFIT.	
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Go-Around/Rejected Landing		Can identify, assess, and manage risks, encompassing managing a go-around/rejected landing after accepting a LAHSO clearance.	High
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can execute use of LNAV mode(s).		High
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer	Can execute use of VNAV mode(s).		High

performance without vertical guidance lines of minima using the wide area augmentation system			
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can apply ATC procedures/phraseology		High
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can apply functionality of vector to final mode		High
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of	Can perform the use of navigation systems including procedure selection and ILS look-alike principle:		High

minima using the wide area augmentation system			
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can perform flying of a procedure		High
Conduct GPS instrument approach procedures with localizer performance with vertical guidance and localizer performance without vertical guidance lines of minima using the wide area augmentation system	Can perform setup and interpretation of electronic displays and symbols.		High
Conduct Interior and exterior preflight		Can identify, assess, and manage risks encompassing Inoperative equipment discovered prior to flight.	High
Conduct Interior and exterior preflight		Can identify, assess, and manage risks encompassing	High

		external pressures and Aviation security concerns.	
Conduct Landing Configuration Stall Prevention	Can perform smooth adjustment of pitch attitude, bank angle (15°-30°), and power setting either manually or with the autopilot engaged		High
Conduct Landing Configuration Stall Prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		High
Conduct Landing Configuration Stall Prevention	Can perform establishment of the landing configuration (i.e., lift/drag devices set and landing gear extended) and maintain coordinated flight in simulated or actual instrument conditions throughout the maneuver		High
Conduct Landing Configuration Stall Prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		High
Conduct Landing Configuration Stall Prevention	Can execute a stall recovery in accordance with procedures set forth in the POH/AFM		High
Conduct Landing Configuration Stall Prevention	Can execute retraction of the flaps or other lift/drag devices to the recommended setting, retract the landing gear after a positive rate of climb is established and return to the desired flight path		High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing factors and situations that could lead to	High

		an inadvertent stall, spin, and loss of control during landing	
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing range and limitations of stall warning indicators (e.g., aircraft buffet, stall horn, stick shaker, etc.)	High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing failure to recognize and recover at the stall warning	High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing improper stall recovery procedure	High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing secondary stalls, accelerated stalls, elevator trim stalls, and cross-control stalls	High

Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing the effect of environmental elements on aircraft performance while landing as it relates to stalls (e.g., turbulence, icing, microbursts, and high-density altitude)	High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing stalls at a low altitude	High
Conduct Landing Configuration Stall Prevention		Can identify, assess, and manage risks encompassing distractions, loss of situational awareness, or improper task management	High
Conduct Landing From a Precision Approach	Can perform proper reaction to significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH. Expected pilot response to failure after touchdown should be addressed as well.		High

Conduct Landing From a Precision Approach	Can recognize and execute appropriate actions in response to ground or navigation system faults, failures or abnormalities at any point during the approach and landing.		High
Conduct Landing From a Precision Approach		Can appreciate that pilots should be familiar with the need to report navigation system anomalies or discrepancies, failures of any lighting system (e.g., approach lights, runway lights, touchdown zone (TDZ) lights, centerline lights), or any other discrepancies that could be pertinent to operations.	High
Conduct Landing From a Precision Approach		Can demonstrate familiarization with operator's policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered	High

		runways. Limits should be noted for use of wet or icy runways as far as directional control or stopping performance is concerned, and flight crews should be familiar with appropriate constraints related to braking reports and the obscuration of appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway contaminants and condition reporting.	
Conduct Landing From a Precision Approach	Can maintain the desired airspeed, ±5 knots, and vertical and lateral guidance within ¼-scale deflection of the indicators during the descent from DA/DH to a point where visual maneuvering is used to accomplish a normal landing.		High
Conduct Landing From a Precision Approach	Can comply with all ATC advisories, such as NOTAMs, windshear, wake turbulence, runway surface, braking conditions, and other operational considerations.		High

Conduct Landing From a Precision Approach	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High
Conduct Landing From a Precision Approach	Can maintain positive airplane control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		High
Conduct Landing From a Precision Approach	Can demonstrate SRM or CRM, as appropriate.		High
Conduct Landing From a Precision Approach	Can apply runway incursion avoidance procedures.		High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing selection of an approach procedure and runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing wake turbulence.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks,	High

		encompassing planning for missed approach	
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for land and hold short operations (LAHSO)	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for distractions, loss of	High

		situational awareness, or improper task management.	
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for attempting to land from an unstable approach.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for flying below the glidepath.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for transitioning from instrument to visual references for landing.	High
Conduct Missed Approach	Can execute a missed approach from the MDA, DA/DH, or AH.		High
Conduct Missed Approach	Can execute a missed approach from a low altitude that could result in a touchdown during go-around (balked or rejected landing).		High
Conduct Missed Approach	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		High

Conduct Missed Approach	Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and initiate a positive rate of climb at the appropriate airspeed/V- speed, ±5 knots.		High
Conduct Missed Approach	Can coordinate with crew and execute the appropriate procedures and checklist(s) in a timely manner.		High
Conduct Missed Approach	Can comply with the published or alternate missed approach procedure.		High
Conduct Missed Approach	Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		High
Conduct Missed Approach	Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure.		High
Conduct Missed Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		High
Conduct Missed Approach	Can demonstrate effective CRM		High
Conduct Missed Approach	Can execute re-engagement of the autopilot at appropriate times during the missed approach procedure.		High
Conduct Missed Approach	Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix, or other clearance limit, as appropriate, or as directed by the evaluator.		High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to	High

		follow prescribed procedures.	
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing holding, diverting, or electing to fly the approach again.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing factors that might lead to executing a missed approach procedure before the MAP or to a go-around below DA/MDA.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to manage	High

		automated navigation and auto flight systems.	
Conduct Normal Approach and Landing	Can execute normal landings at the lowest applicable minima for each authorized flight guidance and/or visual system.		High
Conduct Normal Approach and Landing	Can perform manual rollout in low visibility at applicable minima. (except for aircraft using an automatic fail operational (FO) rollout system)		High
Conduct Normal Approach and Landing	Can perform landings at the limiting environmental conditions authorized for that operator with respect to wind, crosswind components, and runway surface friction characteristics		High
Conduct Normal Approach and Landing	Can coordinate with crew and execute after landing checklists(s).		High
Conduct Normal Approach and Landing	Can perform radio calls as appropriate		High
Conduct Normal Approach and Landing	Can maintain a ground track that ensures the desired traffic pattern will be flown taking into consideration obstructions and ATC		High
Conduct Normal Approach and Landing	Can confirm the airplane is aligned with the correct/assigned runway or landing surface.		High
Conduct Normal Approach and Landing	Can scan runway or landing surface and adjoining area for traffic and obstructions.		High
Conduct Normal Approach and Landing	Can select a suitable touchdown point considering wind, landing surface, and obstructions.		High

Conduct Normal Approach and Landing	Can perform establishing the recommended approach and landing configuration and airspeed, ±5 knots, and adjust pitch attitude and power as required to maintain a stabilized approach.		High
Conduct Normal Approach and Landing	Can maintain directional control and appropriate crosswind correction throughout the approach and landing.		High
Conduct Normal Approach and Landing	Can perform smooth, timely, and correct control application before, during, and after touchdown.		High
Conduct Normal Approach and Landing	Can execute touch down with the runway centerline between the main landing gear at the appropriate speed and pitch attitude at the runway aiming point markings -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High
Conduct Normal Approach and Landing	Can execute deceleration to taxi speed (20 knots or less on dry pavement, 10 knots or less on contaminated pavement) to within the calculated landing distance plus 25% for the actual conditions with the runway centerline between the main landing gear		High
Conduct Normal Approach and Landing	Can execute a timely go-around if the approach cannot be made within the tolerances specified above or for any other condition that may result in an unsafe approach or landing.		High
Conduct Normal Approach and Landing	Can apply runway incursion avoidance procedures.		High

Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing selection of a runway or approach path and touchdown area-based aircraft limitations, available distance, surface conditions, and wind.	High
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing wake turbulence.	High
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing Go-Around/Rejected Landing	High
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing land and Hold Short Operations (LAHSO)	High
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft,	High

		terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Normal Approach and Landing		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, incorrect airport surface approach and landing, or improper task management.	High
Conduct Normal Takeoff and Climb	Can perform takeoff in limiting crosswinds, winds, gusts, and runway surface friction to levels authorized. Training should be done at weights or on runways that represent a critical field length		High
Conduct Normal Takeoff and Climb	Can coordinate with crew and complete the appropriate checklist(s) prior to takeoff in a timely manner		High
Conduct Normal Takeoff and Climb	Can perform radio calls as appropriate		High
Conduct Normal Takeoff and Climb	Can verify assigned/correct runway		High

Conduct Normal Takeoff and Climb	Can verify the airplane is configured for takeoff		High
Conduct Normal Takeoff and Climb	Can execute clearing of the area and taxi into takeoff position and align the airplane on the runway centerline		High
Conduct Normal Takeoff and Climb	Can maintain centerline and proper flight control inputs during the takeoff roll		High
Conduct Normal Takeoff and Climb	Can confirm takeoff power and proper engine and flight instrument indications prior to rotation and perform callouts as appropriate, for the airplane or per the operator's procedures		High
Conduct Normal Takeoff and Climb	Can perform rotation and lift off at the recommended airspeed		High
Conduct Normal Takeoff and Climb	Can maintain a power setting and a pitch attitude to maintain the desired climb airspeed/V-speed, ±5 knots for each climb segment		High
Conduct Normal Takeoff and Climb	Can maintain desired heading ±5°		High
Conduct Normal Takeoff and Climb	Can perform Retraction of the landing gear and flaps in accordance with manufacturer or operator procedures and limitations, as appropriate		High
Conduct Normal Takeoff and Climb	Can perform wake turbulence avoidance		High
Conduct Normal Takeoff and Climb	Can follow noise abatement procedures		High
Conduct Normal Takeoff and Climb	Can execute appropriate after-takeoff checklist(s) in a timely manner		High
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing selection of a runway, or runway	High

		intersection aircraft limitations, available distance, surface conditions, and wind	
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing wake turbulence	High
Conduct Normal Takeoff and Climb		Can demonstrate proper planning for rejected takeoff	High
Conduct Normal Takeoff and Climb		Can demonstrate proper planning for engine failure in takeoff phase of flight	High
Conduct Normal Takeoff and Climb		Can demonstrate proper planning for engine failure in climb phase of flight	High
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing improper aircraft configuration or settings (e.g., trim, flaps,	High

		autobrakes, etc.)	
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife	High
Conduct Normal Takeoff and Climb		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management	High
Conduct Partial Flap Configuration Stall Prevention	Can recognize the cues and execute prompt recovery at the first indication of an impending stall (e.g., buffet, stall horn, stick shaker, etc.)		High
Conduct Partial Flap Configuration Stall Prevention	Can execute a stall recovery in accordance with procedures set forth in the POH/AFM		High
Conduct Partial Flap Configuration Stall Prevention	Can execute retraction of the flaps or other lift/drag devices to the recommended setting, retract the landing gear after a positive rate of climb is established, and return to the desired flight path		High

Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing factors and situations that could lead to an inadvertent stall and loss of control during takeoff or while on approach	High
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing range and limitations of stall warning indicators (e.g., aircraft buffet, stall horn, stick shaker, etc.)	High
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing failure to recognize and recover at the stall warning	High
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing improper stall recovery procedure	High
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing secondary	High

		stalls, accelerated stalls, elevator trim stalls, and cross-control stalls	
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing the effect of environmental elements on aircraft performance while in a partial flap configuration as it relates to stalls (e.g., turbulence, microbursts, and high-density altitude)	High
Conduct Partial Flap Configuration Stall Prevention		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management	High
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can execute procedure with smoothness and accuracy		High
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can operate the airplane within its limitations		High

Conduct PFD malfunction procedure (AGM 1 or DU1)	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can apply aeronautical knowledge to execution of the task	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can apply crew coordination	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can conduct effective communicatio n with the other crew members	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can manage crew cooperation	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can demonstrate good	High

		judgement and airmanship	
Conduct Powerplant Start	Can ensure the ground safety procedures are followed during the before-start, start, and after- start phase		High
Conduct Powerplant Start	Can coordinate with crew and complete the appropriate checklist(s) prior to and after powerplant start.		High
Conduct Powerplant Start	Can identify an abnormal start or malfunction and execute the correct procedure		High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing malfunctions during powerplant start	High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing turbine powerplant safety	High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing managing situations where specific instructions or checklist items are not published	High
Conduct Powerplant Start		Can identify, assess, and manage risks encompassing personnel, vehicles,	High

		vessels, foreign object debris, and other aircraft in the vicinity during powerplant start	
Conduct Pushback	Can conduct a pushback operation in accordance with the published OEM checklist.		High
Conduct Precision Approach	Can perform appropriate normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures		High
Conduct Precision Approach	Can perform procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.		High
Conduct Precision Approach		Can appreciate constraints for head winds, tail winds, crosswinds, and the effect of vertical and horizontal wind shear on automatic systems, flight directors	High

		(F/D), or other system (e.g., HUD, SVGS, etc.) performance. For systems such as HUDs that have a limited field of view (FOV), or synthetic reference systems, pilots should be familiar with the display limitations of these systems and expected pilot actions in the event that the aircraft reaches or exceeds a display limit capability.	
Conduct Precision Approach	Can execute types of instrument procedures approved for the air carrier (standard and special, lowest straight-in, or circling minima, if applicable); according to the operator's manuals, charts and checklists, on the aircraft type, model and series flown.		High
Conduct Precision Approach	Can use flight guidance and/or visual system(s) and their corresponding category(s) of minima for each authorized system;		High
Conduct Precision Approach	Can use NAVAID(s) and visual aids used (LVO/SMGCS lighting if applicable);		High

Conduct Precision Approach	Can apply Flightcrew procedures used (e.g., PF/PM duties, monitored approach, or call-outs);		High
Conduct Precision Approach		Can demonstrate familiarization with airport and runway characteristics typically experienced;	High
Conduct Precision Approach	Can perform relevant normal, non-normal, and environmental conditions. Training and evaluation need only be conducted using relevant and representative procedures and conditions (e.g., a representative mix of day, night, dusk, variable/patchy conditions, representative temperatures, landing runway altitudes, precipitation conditions, turbulence, and icing conditions); and		High
Conduct Precision Approach	Can respond appropriately to aircraft and ground system failures.		High
Conduct Precision Approach	Can perform the precision instrument approaches selected by the instructor/evaluator.		High
Conduct Precision Approach	Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		High
Conduct Precision Approach	Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		High

Conduct Precision Approach	Can comply in a timely manner with all clearances, instructions, and procedures.		High
Conduct Precision Approach	Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		High
Conduct Precision Approach	Can coordinate with ATC if unable to comply with a clearance.		High
Conduct Precision Approach	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		High
Conduct Precision Approach	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High
Conduct Precision Approach	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		High
Conduct Precision Approach	Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		High
Conduct Precision Approach	Can maintain a stabilized final approach from the Final Approach Fix (FAF) to DA/DH allowing no more than ¼-scale deflection of either the vertical or lateral guidance		High

	indications and maintain the desired airspeed ±5 knots		
Conduct Precision Approach	Can immediately initiate the missed approach procedures if the required visual references for the runway are not distinctly visible and identifiable upon reaching the DA/DH.		High
Conduct Precision Approach	Can, upon reaching the DA/DH, perform a transition to a normal landing when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering		High
Conduct Precision Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to follow the correct approach procedure (e.g., descending below the glideslope, etc.).	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing selecting an	High

		incorrect navigation frequency.	
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing an unstable approach, including excessive descent rates.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing deteriorating weather conditions on approach.	High

Conduct Precision Approach		Can identify, assess, and manage risks, encompassing continuing to descend below the Decision Altitude (DA)/Decision Height (DH) when the required visual references are not visible.	High
Conduct Recovery From Unusual Flight Attitudes	Can use instrument cross-check and interpretation to identify a nose low unusual attitude		High
Conduct Recovery From Unusual Flight Attitudes	Can use instrument cross-check and interpretation to identify a nose high unusual attitude		High
Conduct Recovery From Unusual Flight Attitudes	Can apply the appropriate pitch, bank, and power corrections, in the correct sequence, to return to a stabilized level flight attitude		High
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing situations that could lead to loss of control or unusual flight attitudes (e.g., stress, task saturation, and distractions).	High
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing exceeding the	High

		operating envelope during the recovery	
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing failure to recognize an unusual flight attitude and follow the proper recover procedure	High
Conduct Recovery From Unusual Flight Attitudes		Can identify, assess, and manage risks, encompassing exceeding the operating envelope during the recovery	High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify currency and integrity of aircraft navigation data		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can obtain a receiver autonomous integrity monitoring (RAIM) prediction for the planned RNP operation		High

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify successful completion of RNP system self-tests;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform initialization navigation system position		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform retrieval of an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can execute an RNP procedure (e.g., Standard Instrument Departure (SID) or a Standard Terminal Arrival (STAR) with appropriate transition)		High
Conduct RNP operations in the United States, oceanic and remote continental airspace,	Can perform adherence to speed and/or altitude constraints associated with RNP operations		High

and in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can select the appropriate STAR or SID for the active runway in use and be familiar with procedures to deal with a runway change		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify waypoints and flight plan programming;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform a manual or automatic runway update (with takeoff point shift for Inertial Reference Units (IRU) only);		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying direct to a waypoint		High

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying a course/track to a waypoint		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform interception of a course/track		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform flying vectors, and rejoining an RNP route/procedure from the 'heading' mode;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform selecting/arming the navigation system for an ILS or GLS transition		High
Conduct RNP operations in the United States, oceanic and remote continental airspace,	Can perform insertion and deletion of a route discontinuity;		High

and in foreign countries which adopt ICAO standards for RNP operations.			
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform removal and reselection of a navigation sensor input;		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can confirm exclusion of a specific navigation aid or navigation aid type (distance measuring equipment (DME) and very high frequency omni-directional range (VOR) only);		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform changing of the arrival airport and alternate airport		High
Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can verify the RNP value set in the flight management system (FMS) matches the equipment capability and authorizations as annotated in the flight plan		High

Conduct RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can perform parallel offset function if capability exists		High
Conduct Steep Turns	Can maintain the manufacturer's recommended airspeed; or if one is not available, an airspeed not to exceed VA		High
Conduct Steep Turns	Can maintain at least a 45° bank solely by reference to instruments and make a coordinated steep turn of at least 180°		High
Conduct Steep Turns	Can perform reversal of direction and establish at least a 45° bank solely by reference to instruments and make a coordinated steep turn of at least 180°		High
Conduct Steep Turns	Can perform smooth pitch, bank, and power adjustments as needed		High
Conduct Steep Turns	Can maintain the entry altitude ±100 feet, airspeed ±10 knots, bank ±5°, and roll out on the specified heading, ±10°		High
Conduct Steep Turns	Can maintain avoidance of any indications of impending stall, abnormal flight attitude, or exceedance of any structural or operating limitation		High
Conduct Steep Turns		Can identify, assess, and manage risks, encompassing spatial disorientation when	High

		conducting a steep turn while flying by reference to instruments	
Conduct Steep Turns		Can identify, assess, and manage risks, encompassing failure to maintain coordinated flight	High
Conduct Steep Turns		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management	High
Conduct Taxi	Low visibility taxi and ground operations should be trained to the extent practical and beneficial. Such training should address operations at typical airports or alternately, at airports frequently experiencing low-visibility conditions, complex airports on the operator's route system, airports with particular low visibility ground movement difficulties, or rarely used but significant contingency airports, as determined appropriate by the operator.		High
Conduct Taxi	perform either PF or PM duties, unless otherwise limited by the operator's policies or aircraft characteristics (e.g., single HUD).		High

Conduct Taxi	Can record taxi instructions, respond to taxi clearances, and review taxi routes on the airport diagram.		High
Conduct Taxi	Can use an airport diagram or taxi chart during taxi		High
Conduct Taxi	Can comply with ATC clearances and instructions and observe all runway hold lines, ILS critical areas, beacons, and other airport/taxiway markings and lighting		High
Conduct Taxi	Can coordinate with crew, if applicable, and complete the appropriate checklist(s) prior to and during taxi		High
Conduct Taxi	Can maintain situational awareness during taxi		High
Conduct Taxi	Can maintain correct and positive airplane control, proper speed, appropriate use of wheel brakes and reverse thrust		High
Conduct Taxi	Can maintain separation between other aircraft, vehicles, and persons to avoid an incursion/incident/accident		High
Conduct Taxi	Can use aircraft exterior lighting for day and night operations		High
Conduct Taxi		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related	High

		to taxi instructions	
Conduct Taxi		Can identify, assess, and manage risks, encompassing a taxi route or departure runway change	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing low visibility taxi operations	High
Conduct Taxi		Can conduct a briefing on the timing and execution of aircraft checklists and company communicatio ns at the appropriate times and locations, ensuring the pilot who is not taxiing the aircraft can be available to participate in verbal coordination with the pilot	High

		who is taxiing the aircraft	
Conduct Taxi		Can consider the anticipated duration of the taxi operation, the locations of hot spots/complex intersections and runway crossings, and the visibility along the taxi route when briefing tasks or accomplishing checklists	High
Conduct Taxi		Can manage pilot workload and heads-down time during taxi by conducting predeparture checklists, including setting the takeoff flap setting, when the aircraft is stopped or while taxiing straight ahead on a taxiway without complex intersections and hot spots	High
Conduct Taxi		Can maintain a sterile cockpit	High

		during taxi operations	
Conduct Taxi	Can use airport diagram to follow progress of the taxi operation		High
Conduct Taxi		Can manage the risk of expectation bias, and follow the clearance or instructions that are actually received, and not the ones they expected to receive.	High
Conduct Taxi		Can be alert to ATC instructions to hold short of an ILS critical area holding line.	High
Conduct Taxi		Can monitor the aircraft's progress on the airport diagram to ensure that the pilot taxiing the aircraft is following the instructions received from the ATC while maintaining outside vigilance	High
Conduct Taxi		Can determine whether or not to accept last-minute turnoff instructions	High

		from ATC, refusing such clearance unless the crew clearly understands the instructions and are certain that they can safely comply.	
Conduct Taxi		Can respond to all hold short instructions, and verifies with other crew members or ATC to ensure agreement and understanding	High
Conduct Taxi	Can execute bringing the aircraft to a complete stop, or be in a phase of taxiing that has no risk of a runway incursion before continuing with operational duties and checklists		High
Conduct Taxi		Can comply with hold short or crossing clearance when approaching an entrance to a runway.	High
Conduct Taxi		Can explain or demonstrate proper actions if the crew becomes disoriented: never stop on a runway, and initiate communicatio	High

		ns with ATC to regain orientation.	
Conduct Taxi		Can demonstrate vigilance when instructed to taxi and “Line Up and Wait”. Turns Traffic Alert and Collision Avoidance System (TCAS)/traffic advisory systems (TAS) on in order obtain awareness of any aircraft that may be landing on your runway.	High
Conduct Taxi		Can resolve all misunderstandings or disagreements regarding taxi clearance to the satisfaction of all flightcrew members before taxiing the aircraft.	High
Conduct Taxi	Can apply use of the airport diagram after receiving a clearance, and confirms and verbalizes the assigned runway and taxi route, including any instructions to hold short of, or cross, a runway. If there is any		High

	doubt, speaks up and resolve the uncertainty before taxi		
Conduct Taxi		Can coordinate with other flightcrew member(s) if stopping and resuming the monitoring of the ATC frequency, for example when it becomes necessary for a flightcrew member to stop monitoring any ATC frequency to prepare the aircraft for takeoff or landing.	High
Conduct Taxi		Can assess any upcoming hold short instructions or clearances that could be misinterpreted prior to stopping and after resuming monitoring of the taxi. An example may include: “I’m heads-down, right turn ahead at Alpha,” or	High

		"I'm back, any changes?"	
Conduct Taxi		Can appreciate that time away from monitoring ATC should be avoided with complex taxi routing or crossing of runways. Any instructions or information received or transmitted during that flightcrew member's absence from the ATC frequency should be reviewed and confirmed upon his or her return.	High
Conduct Taxi		Can coordinate verbally at complex intersections to be sure that: the intersection is correctly identified and confirmed using the airport diagram and the heading indicator	High

Conduct Taxi		Can state "approaching (specific runway number) hold short line. Before crossing any hold short line, the flightcrew should visually scan to the left and to the right, including the full length of the runway and its approach paths, and coordinate verbally (e.g., "clear right/left" or that the scan area is not clear).	High
Conduct Taxi		Can coordinate verbally and agree on the runway assigned by ATC, the upcoming assigned exit, and any restrictions, such as hold short points of an intersecting runway and the aircraft's parking area after landing	High

Conduct Taxi	Can execute turning on the rotating beacon whenever an engine is running		High
Conduct Taxi	Can execute turning on navigation, position, anti-collision, and logo lights, if available, to signal intent to other pilots prior to commencing taxi		High
Conduct Taxi	Can execute turning on the taxi light when the aircraft is moving or intending to move on the ground, and turning it off when stopped or yielding or as a consideration to other pilots or ground personnel		High
Conduct Taxi	Can execute illuminating all lights when crossing a runway when appropriate		High
Conduct Taxi		Can consider any adverse effects to safety that illuminating the forward-facing lights will have on the vision of other pilots or ground personnel during runway crossings, and adjust operation accordingly	High
Conduct use of FMS	Can perform use of the automatic throttle, flight management computer, or other speed management system, if applicable.		High

Conduct use of FMS		Can manage the risk of errors when receiving a change to assigned routing by ensuring the waypoints sequence depicted by their navigation system matches the route depicted on the appropriate chart(s) and their assigned route	High
Conduct use of FMS	Can verify currency of aircraft navigation data.		High
Conduct use of FMS	Can perform flying a course/track to a waypoint.		High
Conduct use of FMS	Can perform interception of a course/track		High
Conduct use of FMS	Can comply with a vectored off and execute rejoining a procedure.		High
Conduct use of FMS	Can determine cross-track error/deviation		High
Conduct use of FMS	Can execute insertion and deletion of a route discontinuity		High
Conduct use of FMS	Can execute removal and reselection of navigation sensor inputs.		High
Conduct use of FMS	Can confirm exclusion of a specific navigation aid or navigation aid type.		High
Conduct use of FMS	Can execute insertion and deletion of a lateral offset		High

Conduct use of FMS	Can execute a change of the arrival airport and alternate airport		High
Conduct use of FMS	Can execute insertion and delete a holding pattern		High
Conduct use of FMS	Can verify successful completion of RNAV system self-tests		High
Conduct use of FMS	Can execute initialization of RNAV system position		High
Conduct use of FMS	Can execute retrieval and flying of a DP or STAR with appropriate transition		High
Conduct use of FMS	Can comply with speed and/or altitude constraints associated with a DP or STAR.		High
Conduct use of FMS	Can execute making a runway change associated with a DP or STAR		High
Conduct use of FMS	Can verify waypoints and flight plan programming		High
Conduct use of FMS	Can perform a manual or automatic runway update (with takeoff point shift, if applicable)		High
Conduct use of FMS	Can perform flying direct to a waypoint		High
Conduct use of FMS	Can perform a complex SID consisting of multiple altitude and speed constraints		High
Conduct use of FMS	Can perform a complex STAR consisting of multiple altitude and speed constraints		High
Conduct use of FMS	Can input a lat/long waypoint to the FMS		High
Conduct use of FMS	Can demonstrate general awareness of all three styles of flight director		High
Conduct use of FMS	Can identify symbology available in synthetic vision system		High
Conduct use of FMS	Can differentiate between conformal and non-conformal scaling in the HUD and synthetic vision		High

Conduct use of FMS	Can use the cursor control device effectively		High
Conduct use of FMS	Can perform transition between automatic (FMS-controlled) to manual mode and back in the event of a flightpath deviation due to input error or system malfunction.		High
Conduct use of HUD	Conduct takeoff or missed approach without using HUD to ATP ACS standards		High
Conduct use of HUD	Conduct instrument approach without using HUD to ATP ACS standards		High
Conduct use of HUD	Can use the pitch limit indicator (PLI) during windshear escape.		High
Conduct use of HUD	Can relate glidepath angle to the symbolic runway.		High
Conduct use of HUD	Can perform recovery from unusual attitudes using HUD		High
Conduct use of PlaneView System, if applicable	Can perform use of the PlaneView system installed in the full flight training equipment		High
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - autopilot		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - autopilot		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - autopilot		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and		Can identify, assess, and manage risks	High

communications - autopilot		encompassing failure to monitor and manage automated systems.	
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - Electronic Flight		Can identify, assess, and manage risks encompassing failure to	High

Instrument Systems (EFIS)		detect system malfunctions or failures.	
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - emergency locator transmitter.		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - emergency locator transmitter.		Can identify, assess, and manage risks encompassing failure to follow appropriate	High

		checklists or procedures	
Understand Avionics and communications - emergency locator transmitter.		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - emergency locator transmitter.		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - Flight Management System (FMS)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - Flight Management System (FMS)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - Flight Management System (FMS)		Can identify, assess, and manage risks encompassing improper management of a system failure	High

Understand Avionics and communications - Flight Management System (FMS)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - Global Navigation Satellite System (GNSS)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - Global Navigation Satellite System (GNSS)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - Global Navigation Satellite System (GNSS)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - Global Navigation Satellite System (GNSS)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system		Can appreciate flightcrew contingency procedures for a loss of GPS and/or WAAS capability to emphasize maintaining separation from terrain, obstacles and other aircraft.	High
Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system		Can appreciate impact of aircraft integrations that incorporate both (WAAS) LPV capability and baro-VNAV capability.	High
Understand Avionics and communications - ground-based navigation systems and components		Can appreciate that ground systems and NAVAIDs are considered to include characteristics of the airport, electronic navigation aids, lighting, markings, other systems (e.g., RVR), and any other relevant information necessary for	High

		safe AWO operations.	
Understand Avionics and communications - ground-based navigation systems and components		Can appreciate the importance of checking that proper selections have been made to ensure appropriate system performance, and the sequence and management of any mode changes.	High
Understand Avionics and communications - ground-based navigation systems and components		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - ground-based navigation systems and components		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - ground-based navigation systems and components		Can identify, assess, and manage risks encompassing improper management	High

		of a system failure	
Understand Avionics and communications - ground-based navigation systems and components		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - indicating devices		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - indicating devices		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - indicating devices		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - indicating devices		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Avionics and communications - indicating devices	Can interpret flight path vector symbology as it relates to the PFD and HUD, both caged and uncaged		High
Understand Avionics and communications - Inertial Navigation Systems (INS)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - Inertial Navigation Systems (INS)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - Inertial Navigation Systems (INS)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - Inertial Navigation Systems (INS)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - Radar		Can identify, assess, and manage risks encompassing	High

		failure to detect system malfunctions or failures.	
Understand Avionics and communications - Radar		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - Radar		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - Radar		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can apply monitoring procedures for each phase of flight (e.g., monitor PROG or LEGS page)		High

Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can demonstrate familiarization with automatic and/or manual setting of the required RNP value		High
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can demonstrate familiarization with the navigation equipment regarding lateral and vertical capture from an RNP routing to an instrument landing system (ILS) or Ground Based Augmentation System (GBAS) Landing System (GLS)		High
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.		Can appreciate the importance of awareness of possible false vertical and lateral captures during a transition on an ILS capture	High
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which	Can demonstrate how offsets are applied, the functionality of their particular navigation system and the need to advise air traffic control (ATC) if this functionality is not available		High

adopt ICAO standards for RNP operations.			
Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can apply receiver/transmitter (R/T) phraseology for RNP applications		High
Understand Avionics and communications - terrain awareness/warning/ alert systems		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - terrain awareness/warning/ alert systems		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - terrain awareness/warning/ alert systems		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications -		Can identify, assess, and manage risks	High

terrain awareness/warning/ alert systems		encompassing failure to monitor and manage automated systems.	
Understand Avionics and communications - transponder		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - transponder		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - transponder		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - transponder		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can explain the adverse effects of exceeding an airplane	High

		limitation or the airplane operating envelope.	
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining takeoff performance (e.g., balance field length, VMCG) per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining accelerate-stop /		Can explain the adverse effects of exceeding an	High

accelerate-go distance per AFM		airplane limitation or the airplane operating envelope.	
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High
Understand determining accelerate-stop / accelerate-go distance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining accelerate-stop /		Can appreciate that take off distance	High

accelerate-go distance per AFM		numbers provided by the AFM are the most restrictive result of numerous part 25 requirements	
Understand determining climb performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining climb performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance	High

		and stall warning, and runway excursions	
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and Runway excursions	High

Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining descent performance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on performance and stall warning, and	High

		Runway excursions	
Understand determining descent performance per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand determining fuel requirements per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining fuel requirements per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining weight and balance per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining weight and balance per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High

Understand Envelope protection—angle of attack warning and protection and speed protection		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Envelope protection—angle of attack warning and protection and speed protection		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Envelope protection—angle of attack warning and protection and speed protection		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Envelope protection—angle of attack warning and protection and speed protection		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Lighting		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Lighting		Can identify, assess, and manage risks	High

		encompassing failure to follow appropriate checklists or procedures	
Understand Lighting		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Lighting		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand OEM checklist philosophy		Can appreciate that while there are no defined memory items in the AFM, pilots should still be familiar enough with the aircraft to be able to perform initial and critical items without first referencing associated documentation. In addition, pilots are expected to don oxygen	High

		masks promptly when appropriate (e.g., when smoke is detected).	
Understand OEM checklist philosophy		Can appreciate that abnormal and emergency procedures are presented in quick reference handbooks (QRH) of an identical format for all three aircraft. Although some individual steps may differ or use different acronyms, these steps are carried out under the guidance of the handbook in a logical decision-making manner	High
Conduct EFVS Operations	Per § 61.66(b)(2)(i) can integrate the following: it is necessary that the flight training curriculum includes preflight and in-flight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes, and associated systems, and		High

	adjustments for brightness and contrast under day and night conditions. It may be beneficial to perform these tasks in the curriculum using either the manufacturer's recommended procedures or procedures applicable to the operator.		
Conduct EFVS Operations	Per § 61.66(b)(2)(ii) can integrate the following: it is necessary that the flight training curriculum includes proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings. It may be beneficial for the curriculum to allow pilots to become familiar with the use of installed equipment such as an EFVS in all phases of flight.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can use a sample of approach types for the EFVS operation being trained (e.g., precision and nonprecision, if applicable).		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can conduct EFVS operations in visibilities less than IAP minimum visibilities. This may not be practical if training is conducted in an aircraft. If the training is accomplished in a full flight simulator (FFS), conduct the training with the enhanced visibilities representative of the EFVS sensor performance.		High

Conduct EFVS Operations	Per § 61.66(b)(2)(iv) can integrate the following: it is necessary that the flight training curriculum includes determining enhanced flight visibility. The curriculum can help pilots learn how to determine enhanced flight visibility using techniques and methods similar to the techniques and methods used for determining flight visibility when conducting an approach without an EFVS.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(v) can integrate the following: it is necessary that the flight training curriculum includes identifying required visual references appropriate to EFVS operations. The curriculum can help pilots learn how to identify required visual references using an EFVS with techniques and methods similar to the techniques and methods used for identifying the required visual references when conducting an approach without the use of an EFVS. The PM may use the PM display, if available, to assist the PF in this task.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(vi) can integrate the following: it is necessary that the flight training curriculum includes transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment. The curriculum can help pilots learn how to acquire visual		High

	references with natural vison at 100 feet during an EFVS-100 operation. There are many acceptable techniques for identifying the visual references with natural vision while the pilot continues using the EFVS to provide the enhanced flight visibility required for the operation.		
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) use procedures applicable to the PF and PM, crew briefings, procedures, callouts, and coordination items for EFVS operations, including annunciation of published minimums during operation below the DA/DH or MDA.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct procedures at 100 feet during an EFVS-100 operation.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct EFVS failure procedures (procedures for an EFVS failure or a system degradation during an EFVS operation).		High
Conduct EFVS Operations	Can conduct preflight and inflight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes and associated systems, and adjustments for brightness and contrast under day and night conditions.		High
Conduct EFVS Operations	Can use proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including		High

	missed approaches and balked landings.		
Conduct EFVS Operations	Can use proper piloting techniques for the use of EFVS during instrument ap proaches, to include operations below DA/DH or MDA as applicable to the EFVS operations to be conducted, under both day and night conditions.		High
Conduct EFVS Operations	Can determine enhanced flight visibility.		High
Conduct EFVS Operations	Can identify required visual references appropriate to EFVS operations.		High
Conduct EFVS Operations	Can adjust when transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment.		High
Conduct EFVS Operations	Can conduct normal, abnormal, emergency, and crew coordination procedures when using an EFVS.		High
Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include reducing AOA is the proper way to recover from a stall event. Pilots must accept that reducing the airplane's AOA will normally result in altitude loss. The amount of altitude loss will be affected by the airplane's operational environment (e.g., entry altitude, airplane weight, density altitude, bank angle, airplane configuration, etc.). At high altitudes, stall recovery will likely require losing several thousand feet.		High

Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include declaring an emergency if necessary. Do not delay recovery due to degrading airspeed or a stall event to obtain air traffic control (ATC) clearance to a lower altitude.		High
Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include understanding that early recognition and return of the airplane to a controlled and safe state are the most important factors in surviving stall events. Only after recovering to a safe maneuvering speed and AOA should the pilot focus on establishing an assigned heading, altitude, and airspeed.		High
Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include an abrupt pitch-up or trim change can occur when the autopilot unexpectedly disconnects during a stall event. This dramatic pitch-up or trim change typically adds an unexpected physical challenge to the pilot when trying to reduce AOA. In some airplanes, this may be aggravated by an additional pitch up when the pilot increases thrust during stall recovery.		High

Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include secondary stall warnings are indicative of a pilot prioritizing minimum loss of altitude over proper stall recovery or flight control inputs that are too aggressive. In some airplanes, depending on AOA representations, it may be difficult to determine the point where the pitch can begin to be increased and a momentary secondary stall warning may be encountered. A secondary stall warning is acceptable as long as AOA is promptly reduced and the airplane's limitations are not exceeded.		High
Conduct Stall Prevention and Recovery	Can conduct maneuver-based recovery procedures to include air carriers should develop stall prevention evaluation strategies that are a direct reflection to the aircraft type. Between different aircraft types and variations of an aircraft type there is a broad range of available airspeed/AOA/energy information to the pilot. Therefore, an evaluation of a stall prevention with an attitude direction indicator (ADI) that has sufficient information to determine the flight envelope (pitch limit indicators, speed tape with low-speed awareness, airspeed trend needles) should be more stringent. Obviously with this expectation, the assumption is made that the air carrier's stall training prepares the pilot to interpret this information in		High

	low energy states. Conversely, a stall prevention evaluation of a pilot that has limited flight envelope information could allow momentary reactivations of the stall warning after the pilot has reduced the AOA to cease the stall warning and is attempting to return the aircraft to safe flight.		
Conduct Stall Prevention and Recovery	Can recognize how changes to factors such as weight, G loading, CG, bank angle, altitude, and icing affect the handling characteristics and stall speeds of the airplane.		High
Conduct Stall Prevention and Recovery	Can appreciate inappropriate use or inadequate monitoring of autoflight modes can be a contributing factor to a stall event. For example, climbing in vertical speed can lead to a stall event when pilots do not notice the airspeed reducing as the altitude increases; whereas, climbing in modes such as indicated airspeed or flight level change can protect against unnoticed deceleration in a climb.		High
Conduct Stall Prevention and Recovery	Can recognize impending stall characteristics for the specific airplane, including buffeting of a severity that may make it		High

	difficult to read the instruments.		
Conduct Stall Prevention and Recovery	Can recognize and review of AOA indicators (if installed) or interpretation of other representations of AOA such as pitch-limit indicators or speed display symbology that can assist in stall prevention.		High
Conduct Stall Prevention and Recovery	Can recognize noises associated with stick shakers, autopilot, and autothrottle/autothrust disconnect alarms can cause confusion in the cockpit.		High
Conduct Stall Prevention and Recovery	Can appreciate the effects of malfunctioning or deferred equipment on stall protection and stick pusher systems.		High
Conduct Stall Prevention and Recovery	Can differentiate between high and low altitude stalls, pitch rate sensitivity of flight controls (due to lack of aerodynamic damping), and amount of altitude loss required for recovery.		High
Conduct Stall Prevention and Recovery	Can appreciate the altitude effects of thrust available for recovery, and lack of airflow through engines at high AOA (reinforces reduction of AOA must precede any increase of thrust).		High

Conduct Stall Prevention and Recovery	Can execute Scenario-Based Training (SBT). The goal of SBT is to develop decision-making skills relating to stall prevention and recovery during Line-Oriented Flight Training (LOFT). Emphasis should be placed on preventing conditions that may lead to a stall event. SBT would normally be used after a pilot demonstrates proficiency in maneuver-based training and during advanced stages of training, such as upgrade training and recurrent training. (1) Scenarios. When possible, scenarios should include accident, incident, ASAP, FOQA, and/or ASRS data to provide realistic opportunities to see how threat situations may develop and how they should be managed during line operations. Sample SBT lesson plans are provided in Appendix 3. (2) Briefing. Pilots should not normally be briefed that they are receiving SBT. The concept is line-oriented flying, which allows the pilots to recognize and manage the expected or unexpected stall threats as they develop during normal operations. However, situations may arise where pilots exhibit excellent stall prevention skills and initiate a recovery prior to the complete		High

	unfolding of a scenario. That is the desired objective. In those instances, the instructor has the discretion whether to repeat the scenario and then showing and discussing how the many cues typically cascade as the event progresses. Such explanations can reinforce a pilot's knowledge and allow sharpening of awareness and prevention skills.		

Conduct Stall Prevention and Recovery	Can appreciate USING SURPRISE IN TRAINING. Surprise has been a factor in stall incidents and accidents. Although it may be difficult to create surprise in the training environment, if achieved, surprise events may provide a powerful lesson for the crew. The goal of using surprise in training is to provide the crew with a surprise experience to reinforce timely application of the effective recovery technique under potentially confusing circumstances. Considerable care should be used in surprise training to avoid a negative learning experience. Surprise should not be used during checking. Stall prevention training should incorporate event conditions and variables typical of an unintentional stall that are likely to result in surprise due to the unexpected stall development, presentation, and behavior.		High
Conduct and Checking: Stall Prevention and Recovery	CHECKING CRITERIA. Checking of prevention, recognition, and recovery from an impending stall should be evaluated on the timely and proper response to the impending stall including effective use of available energy; the criteria should not focus on altitude loss. The check pilot should consider the variables present at the time of the impending stall and their effect on the recovery. Checking criteria are:		High

	• Prompt recognition of impending stall, • Correct application of the stall recovery procedure, and • Recovering without exceeding the airplane's limitations.		
Conduct Stall Prevention and Recovery	Can appreciate the STICK PUSHER. For airplanes equipped with a stick pusher, stall recovery training includes ground training and practical training in an FFS. It is important for pilots to experience the sudden forward movement of the control yoke/stick during a stick pusher activation. From observations, most instructors state that, regardless of previous academic training, pilots usually resist the stick pusher on their first encounter. Usually, they immediately pull back on the control yoke/stick rather than releasing pressure as they have been taught. Therefore, pilots must receive practical stick pusher training in an FFS to develop the proper response (allowing the pusher to reduce AOA) when confronted with a stick pusher activation. Stick pusher training should be completed as a demonstration/practice exercise, including repetitions, until the pilot's reaction is to permit the reduction in AOA		High

	even at low altitudes. Pilot response to a deliberate activation of the pusher is not a checked maneuver.		
Conduct Stall Prevention and Recovery	Can conduct a stick pusher demonstration. See Appendix 2, Demonstration 2 for details.		High
Conduct Stall Prevention and Recovery	Can conduct a takeoff configuration stall prevention scenario. See Appendix 3, Scenario 2 for details.		High
Conduct Stall Prevention and Recovery	Can conduct a landing configuration stall prevention scenario. See Appendix 3, Scenario 3 for details.		High

SIM 2 Learning Objectives

SIM 2 Briefing Items

Tasks	**Knowledge & Cognitive Learning Objectives**
Conduct Circling Approach	Can explain elements related to circling approach procedures and limitations including approach categories and related airspeed restrictions

Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can explain the flight characteristics and controllability associated with maneuvering the airplane with powerplant(s) inoperative to include the importance of drag reduction.
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can explain powerplant restart procedures and conditions where a restart attempt is appropriate.
Conduct Holding	Can explain elements related to holding procedures, including reporting criteria, appropriate speeds, and recommended entry procedures for standard, nonstandard, published, and non-published holding patterns.
Conduct Holding	Can explain determining holding endurance based upon factors to include an expect further clearance (EFC) time, fuel on board, fuel flow while holding, fuel required to destination and alternate, etc., as appropriate.
Conduct Holding	Can explain when to declare minimum fuel or a fuel-related emergency.
Conduct Holding	Can explain use of automation for holding to include autopilot and flight management systems, if equipped.
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status
Conduct Landing From a Circling Approach	Can explain elements related to the pilot's responsibilities, and the environmental, operational, and meteorological factors that affect landing from a circling approach.
Conduct Landing From a Circling Approach	Can explain approach lighting systems and runway and taxiway signs, markings and lighting.
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can explain airplane flight characteristics when flaps, leading edge devices, and other similar devices malfunction or become inoperative.
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can explain other airplane system limitations when landing at a high speed.
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can explain how to determine required landing distance and a suitable runway for landing.

Conduct a Landing with Pitch Mistrim	Can explain airplane flight characteristics when pitch is mistrimmed.
Conduct a Landing with Pitch Mistrim	Can explain other airplane system limitations when landing at a high speed.
Conduct a Landing with Pitch Mistrim	Can explain how to determine required landing distance and a suitable runway for landing.
Conduct Missed Approach	Can explain that when executing a missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure
Conduct Missed Approach	Can explain elements related to missed approach procedures to include reference to standby or backup instruments.
Conduct Missed Approach	Can explain limitations associated with standard instrument approaches, including while using an FMS or autopilot, if equipped.
Conduct Nonprecision Approach	Can explain that unstabilized approaches are a key contributor to CFIT events, and explain that present NPAs are designed with and without stepdown fixes in the final approach
Conduct Nonprecision Approach	Can explain why stepdowns flown without a constant descent will require multiple thrust, pitch, and altitude adjustments inside the final approach fix (FAF), and can explain that these adjustments increase pilot workload and potential errors during a critical phase of flight.
Conduct Nonprecision Approach	Can explain that the practice commonly referred to as “dive and drive,” can result in extended level flight as low as 250 feet above the ground in instrument meteorological conditions (IMC) and shallow or steep final approaches.

Conduct Nonprecision Approach	Can explain that a stabilized approach is a key feature to a safe approach and landing. Can explain that operators are encouraged by the FAA and the International Civil Aviation Organization (ICAO) to use the stabilized approach concept to help eliminate CFIT.
Conduct Nonprecision Approach	Can explain that the stabilized approach concept is characterized by maintaining a stable approach speed, descent rate, vertical flightpath, and configuration to the landing touchdown point
Conduct Nonprecision Approach	Can explain that precision IAPs and approach procedures with vertical guidance (APV) have a continuous descent approach profile in their design.
Conduct Nonprecision Approach	Can explain that NPAs were not originally designed with this vertical path, but may easily be flown using the CDFA (continuous descent final approach) technique.
Conduct Nonprecision Approach	Can explain why Flying NPAs with a continuous descent profile will provide a safety advantage over flying approaches using the “dive and drive” technique.
Conduct Nonprecision Approach	Can explain that CDFA is a technique for flying the final approach segment of an NPA as a continuous descent. The technique is consistent with stabilized approach procedures and has no level-off.
Conduct Nonprecision Approach	Can explain the six advantages of CDFA: Increased safety by employing the concepts of stabilized approach criteria and procedure standardization; Improved pilot situational awareness (SA) and reduced pilot workload; Improved fuel efficiency by minimizing the low-altitude level flight time; Reduced noise level by minimizing the level flight time at high thrust settings; Procedural similarities to APV and precision approach operations; Reduced probability of infringement on required obstacle clearance during the final approach segment.

Conduct Nonprecision Approach	Can explain that CDFA requires no specific aircraft equipment other than that specified by the title of the NPA procedure and that Pilots can safely fly suitable NPAs with CDFA using basic piloting techniques, aircraft flight management systems (FMS) and RNAV systems, or by manually computing rate of descent.
Conduct Nonprecision Approach	Can calculate a rate of descent for VDA (see example in this paragraph)
Conduct Nonprecision Approach	Can explain that some approach characteristics (e.g., circling-only minima) and environmental factors (e.g., icing) could make the use of CDFA inadvisable.
Conduct Nonprecision Approach	Can explain procedures and limitations associated with a nonprecision approach, including the differences between Localizer Performance (LP) and Lateral Navigation (LNAV) approach guidance
Conduct Nonprecision Approach	Can explain navigation system displays and annunciations, modes of operation, and RNP lateral accuracy values associated with an RNAV (GPS) approach.
Conduct Nonprecision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).
Conduct Nonprecision Approach	Can explain criteria for a stabilized approach, to include energy management concepts.
Conduct Visual Approach (VFR Procedures)	Can explain the visual approach procedure.
Conduct nosewheel steering - Nosewheel Steering failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Conduct Taxi	Can explain the information available on an airport diagram, chart supplement and NOTAMS
Conduct Taxi	Can interpret taxi instructions including published taxi routes

Conduct Taxi	Can identify airport and runway markings, signs, and lights
Conduct Taxi	Can describe proper procedures for entering or crossing runways
Conduct Taxi	Can explain procedures for taxi on one engine
Conduct Taxi	Can explain the hazards of low visibility taxi operations
Conduct Taxi	Can describe appropriate aircraft lighting for day and night operations
Conduct Taxi	Can describe appropriate flight deck activities prior to taxi, including route planning, identifying the location of Hot Spots, and coordinating with crew
Conduct Taxi	Can identify The runway and taxiway characteristics concerning width, safety areas, obstacle free zones, markings, hold lines, signs, holding spots, runway slope, suitability of threshold crossing height (TCH), critical area protection, taxiway position markings, runway distance remaining markings, runway distance remaining signs, and LVO/SMGCS should be addressed.
Conduct Taxi	Can explain the definition of a runway incursion: Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
Conduct Taxi	Can explain why thorough planning for taxi operations is essential for a safe operation
Conduct Taxi	Can conduct briefing of the expected taxi route to include any hold short lines and runways to cross, hot spots, and any other potential conflicts. (Once taxi instructions are received, the pretaxi route should be reviewed and monitored. It is essential that any changes to the taxi route be understood by all crewmembers)

Conduct Taxi	Can identify critical locations on the taxi route, where verbal coordination between the PIC and the SIC is important to avoid a runway incursion. (e.g., hot spots/complex intersections, crossing intervening runways, entering and lining up on the runway for takeoff, and approaching and lining up on the runway for landing)
Conduct Taxi	Can conduct briefing of requirements and special considerations during low visibility operations such as: the low visibility taxi chart, if published for the airport
Conduct Taxi	Can maintain knowledge of the aircraft's precise position throughout the taxi operation and mentally calculate the next location on the route that will require increased attention (e.g., a turn onto another taxiway, an intersecting runway, or hot spots)
Conduct Taxi	Can interpret and use all visual aids, and signage and lighting on the airport surface
Conduct Taxi	Can write down complex taxi instructions or copy taxi instructions into the scratch pad of the CDU
Conduct Taxi	Can explain that before entering a runway for takeoff, the flightcrew should verbally coordinate to ensure correct flap setting, identification of the runway, compass heading, FMC entry, and receipt of the proper ATC clearance to use that runway
Understand Auxiliary Power Unit (APU)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Auxiliary Power Unit (APU)	Can describe the operation of the airplane systems and components using correct terminology
Understand Auxiliary Power Unit (APU)	Can explain system or component limitations
Understand Auxiliary Power Unit (APU)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Auxiliary Power Unit (APU)	Can explain immediate action items or memory items, if appropriate

Understand Auxiliary Power Unit (APU)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Auxiliary Power Unit (APU)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Auxiliary Power Unit (APU)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can define TA (Traffic Advisory) as Aural voice and display information provided by TCAS to a flightcrew, identifying the location of nearby traffic that meets certain minimum separation criteria
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe TCAS on-ground performance
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that the see-and-avoid concept is still valid even with TCAS
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can define Increase, reversal, crossing, and weakened Ras
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that That TCAS II assures separation from aircraft equipped with an altitude-reporting transponder;

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain the detection and protection provided by TCAS against altitude-reporting and non-altitude-reporting intruders
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that the system detects multiple aircraft
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain TCAS to TCAS coordination
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate the potential impact of not following RAs
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can differentiate between TCAS surveillance range versus display range
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain when an intruder will not be displayed
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain the normal, expected pilot response to TAs, RAs, use of displayed traffic information to establish visual contact, and constraints on maneuvering based solely on Tas.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can state RA inhibit altitudes
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can discuss the risks inherent to an inability to comply with an RA due to aircraft performance limitations after an engine failure, and appropriate response to RAs in limiting performance conditions, such as during heavy weight takeoff or while en route at maximum altitude for a particular weight.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain communication and coordination with ATC related to or following a TCAS event, when to contact ATC, and accepted TCAS phraseology.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can identify TCAS symbology
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain radar altimeter inputs to TCAS, and weather radar/electronic flight information system (EFIS) interfaces

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate familiarization with AFM provisions including information on TCAS modes of operation; normal and atypical flightcrew operating procedures; and response to TAs, RAs, and any AFM limitations.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate familiarization with MEL procedures related to TCAS
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe appropriate pilot response to TCAS RAs and TAs, ATC clearance compliances and nuisance alerts.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can sate that TCAS interrogates other transponder-equipped aircraft within a nominal range of 14 nautical miles (NM).
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that TCAS surveillance range can be reduced in geographic areas with a large number of ground interrogators and/or TCAS II equipped aircraft
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can state that TAs can be issued against any transponder-equipped aircraft which responds to the ICAO Mode C interrogations, even if the aircraft does not have altitude reporting capability.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can state that RAs can be issued only against aircraft that are reporting altitude and only in the vertical plane
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can state that RAs issued against a TCAS-equipped intruder are coordinated to ensure the issuance of complementary RAs
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain that TCAS advisories are based on time to CPA rather than distance. The time must be short and vertical separation must be small, or projected to be small, before an advisory can be issued. The separation standards provided by Air Traffic Services (ATS) are different from the missed distances against which TCAS issues an alert
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain that the time must be short and vertical separation must be small, or projected to be small, before an advisory can be issued.

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that the separation standards provided by Air Traffic Services (ATS) are different from the missed distances against which TCAS issues an alert
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that the thresholds for issuing a TA or RA vary with altitude, and are larger at higher altitudes.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that TA tau threshold (trigger point) varies from 20 to 48 seconds before the projected CPA and the RA tau threshold varies from 15 to 35 seconds
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain that RAs are chosen to provide the desired vertical missed distance at CPA. As a result, RAs can instruct a climb or descent through the intruder aircraft's altitude.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that TCAS will neither track nor display non-transponder-equipped aircraft, nor aircraft not responding to TCAS Mode C interrogations.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain that TCAS will automatically fail if the input from the aircraft's barometric altimeter, radio altimeter, or transponder is lost
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that TCAS may not display all proximate transponder-equipped aircraft in areas of high-density traffic.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that, Because of design limitations, the bearing displayed by TCAS is not sufficiently accurate to support the initiation of horizontal maneuvers based solely on the traffic display
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that Because of design limitations, TCAS will not track intruders with a Vertical Speed (VS) in excess of 10,000 feet per minute (fpm). In addition, the design implementation may result in some short-term errors in the tracked VS of an intruder during periods of high vertical acceleration by the intruder

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that Ground proximity warning system (GPWS) warnings and windshear warnings take precedence over TCAS advisories. When either a GPWS or windshear warning is active, TCAS aural annunciations will be inhibited.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that "INCREASE DESCENT" RAs are inhibited below 1,450 (±100) feet AGL
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that "DESCEND" RAs are inhibited below 1,100 (±100) feet AGL.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that all RAs are inhibited below 1,000 (±100) feet AGL.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that all TCAS aural annunciations are inhibited below 500 (±100) feet AGL.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that if your aircraft type provides RA climb and increase climb commands at certified ceiling, the commands are to be followed.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate the proper use of controls including appreciate that low display ranges are used in the terminal area and the higher display ranges are used in the en route environment and in the transition between the terminal and en route environment.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate the proper use of controls including appreciate that if available, recommended usage of the "ABOVE/BELOW" mode selector. "ABOVE" mode should be used during climb and the "BELOW" mode should be used during descent.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate the proper use of controls including appreciate that the configuration of the display does not affect the TCAS surveillance volume.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate the proper use of controls including appreciate the benefits of selecting lower ranges when an advisory is issued, in order to increase display resolution

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate the proper use of controls including differentiate between the display of absolute altitude and relative altitude and explain the limitations of using this display if a barometric correction is not provided to TCAS.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can execute proper configuration to display the appropriate TCAS information without eliminating the display of other needed information.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can recognize traffic within the selected display range that is not proximate traffic, (not causing a TA or RA to be issued).
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can recognize proximate traffic in the display, i.e., traffic that is within 6 NM and ±1200 feet.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can recognize non-altitude reporting traffic in the display.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can recognize no bearing TAs and RAs
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can determine when it is necessary to change the selected range for off-scale TAs and RAs to ensure that all available information on the intruder is displayed.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe how to select the minimum available display range which allows the display of TAs to provide the maximum display resolution
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe how to select the minimum available display range which allows the display of TAs to provide the maximum display resolution
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that navigation displays oriented on track-up may require a pilot to make a mental adjustment for drift angle when assessing the bearing of proximate traffic.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain the meaning of the red and green areas displayed on the RA display and when the green areas will and will not be displayed.

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate general familiarization with the operator's guidance for the use of "TA-ONLY."
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that if "TA-ONLY" is not selected when an airport is conducting simultaneous operations from parallel runways separated by less than 1,200 feet, and to some intersecting runways, RAs can be expected
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that in TA mode, the TA aural annunciation is inhibited below 500 feet AGL. As a result, TAs issued below 500 feet AGL may not be noticed unless the TA display is included in the routine instrument scan.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can appreciate that in TA-ONLY mode, TAs will be issued at the time an RA is normally issued.
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe the division of duties between Pilot Flying (PF) and pilot monitoring (PM)
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can state the expected callouts during a TA or RA
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe proper communications with ATC during a TA or RA
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe the conditions under which an RA may not be followed and who will make this decision
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can describe the operation of the airplane systems and components using correct terminology
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain system or component limitations
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can explain immediate action items or memory items, if appropriate

Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Avionics and communications - traffic awareness/warning/avoidance systems	Can apply the knowledge items specified in AC120-55C
Understand Avionics and communications - traffic awareness/warning/avoidance systems - TCAS Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Electrical System - circuit breakers and protection devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Electrical System - circuit breakers and protection devices	Can describe the operation of the airplane systems and components using correct terminology
Understand Electrical System - circuit breakers and protection devices	Can explain system or component limitations
Understand Electrical System - circuit breakers and protection devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System - circuit breakers and protection devices	Can explain immediate action items or memory items, if appropriate
Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Electrical System - circuit breakers and protection devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Electrical System - controls	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Understand Electrical System - controls	Can describe the operation of the airplane systems and components using correct terminology
Understand Electrical System - controls	Can explain system or component limitations
Understand Electrical System - controls	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System - controls	Can explain immediate action items or memory items, if appropriate
Understand Electrical System - controls	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Electrical System - controls	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Electrical System - controls	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can explain system or component limitations
Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Electrical System - generators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Electrical System - generators	Can describe the operation of the airplane systems and components using correct terminology
Understand Electrical System - generators	Can explain system or component limitations

Understand Electrical System - generators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System - generators	Can explain immediate action items or memory items, if appropriate
Understand Electrical System - generators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Electrical System - generators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Electrical System - generators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Electrical System - indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Electrical System - indicators	Can describe the operation of the airplane systems and components using correct terminology
Understand Electrical System - indicators	Can explain system or component limitations
Understand Electrical System - indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System - indicators	Can explain immediate action items or memory items, if appropriate
Understand Electrical System - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Electrical System - indicators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Electrical System - indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Electrical System -batteries	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Electrical System -batteries	Can describe the operation of the airplane systems and components using correct terminology
Understand Electrical System -batteries	Can explain system or component limitations
Understand Electrical System -batteries	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Electrical System -batteries	Can explain immediate action items or memory items, if appropriate
Understand Electrical System -batteries	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Electrical System -batteries	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - elevator	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - elevator	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - elevator	Can explain system or component limitations
Understand Flight Controls - elevator	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - elevator	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - elevator	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - elevator	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Flight Controls - elevator	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - flaps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - flaps	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - flaps	Can explain system or component limitations
Understand Flight Controls - flaps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - flaps	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - flaps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - flaps	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - flaps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - rudder	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - rudder	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - rudder	Can explain system or component limitations
Understand Flight Controls - rudder	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - rudder	Can explain immediate action items or memory items, if appropriate

Understand Flight Controls - rudder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - rudder	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - rudder	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - speed brakes	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - speed brakes	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - speed brakes	Can explain system or component limitations
Understand Flight Controls - speed brakes	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - speed brakes	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - speed brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - speed brakes	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - speed brakes	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - spoilers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - spoilers	Can describe the operation of the airplane systems and components using correct terminology

Understand Flight Controls - spoilers	Can explain system or component limitations
Understand Flight Controls - spoilers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - spoilers	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - spoilers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - spoilers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - spoilers - Ground Spoiler Failure Inflight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain system or component limitations
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to

	document inoperative components of this system and explain related procedures
Understand Flight Controls - Ailerons	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - Ailerons	Can describe the operation of the airplane systems and components using correct terminology
Understand Flight Controls - Ailerons	Can explain system or component limitations
Understand Flight Controls - Ailerons	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - Ailerons	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - Ailerons	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - Ailerons	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Flight Controls - Ailerons	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - Other Flight Deck Systems	Can describe Other flight deck systems related to AWO operations (e.g., autobrakes or autospoilers), and any associated limitations, characteristics, or constraints (e.g., touchdown pitch up or pitch down tendency of certain autospoiler or autobrake settings or non-normal conditions, time delays, or auto-deactivation features with go-around)
Understand Flight Controls - trim systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Flight Controls - trim systems	Can describe the operation of the airplane systems and components using correct terminology

Understand Flight Controls - trim systems	Can explain system or component limitations
Understand Flight Controls - trim systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Flight Controls - trim systems	Can explain immediate action items or memory items, if appropriate
Understand Flight Controls - trim systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Flight Controls - trim systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Flight Controls - trim systems - mach trim failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - additives	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - additives	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - additives	Can explain system or component limitations
Understand Fuel system - additives	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - additives	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - additives	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - additives	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - additives	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to

	document inoperative components of this system and explain related procedures
Understand Fuel system - capacity and quantities	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - capacity and quantities	Can explain system or component limitations
Understand Fuel system - capacity and quantities	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - capacity and quantities	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - capacity and quantities	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - capacity and quantities - Fuel Leak In Flight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - capacity and quantities - low fuel state procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - controls and indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - controls and indicators	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - controls and indicators	Can explain system or component limitations
Understand Fuel system - controls and indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Understand Fuel system - controls and indicators	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - controls and indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - controls and indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - controls and indicators - Fuel Tank Temperature procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - cross-feeding	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - cross-feeding	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - cross-feeding	Can explain system or component limitations
Understand Fuel system - cross-feeding	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - cross-feeding	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - cross-feeding	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - cross-feeding	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - cross-feeding	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - drains	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Understand Fuel system - drains	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - drains	Can explain system or component limitations
Understand Fuel system - drains	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - drains	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - drains	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - drains	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - drains	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - fuel grade	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - fuel grade	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - fuel grade	Can explain system or component limitations
Understand Fuel system - fuel grade	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - fuel grade	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - fuel grade	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - fuel grade	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Fuel system - fuel grade	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - fuel substitutions	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - fuel substitutions	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - fuel substitutions	Can explain system or component limitations
Understand Fuel system - fuel substitutions	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - fuel substitutions	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - fuel substitutions	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - fuel substitutions	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - fuel substitutions	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - fueling and defueling procedures	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - fueling and defueling procedures	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - fueling and defueling procedures	Can explain system or component limitations
Understand Fuel system - fueling and defueling procedures	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - fueling and defueling procedures	Can explain immediate action items or memory items, if appropriate

Understand Fuel system - fueling and defueling procedures	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - fueling and defueling procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - fueling and defueling procedures	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - pumps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - pumps	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - pumps	Can explain system or component limitations
Understand Fuel system - pumps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - pumps	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - pumps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fuel system - pumps - fuel boost pump failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - pumps - fuel boost pump failure procedure - Fuel Return Fail Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Fuel system - transferring	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fuel system - transferring	Can describe the operation of the airplane systems and components using correct terminology
Understand Fuel system - transferring	Can explain system or component limitations
Understand Fuel system - transferring	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fuel system - transferring	Can explain immediate action items or memory items, if appropriate
Understand Fuel system - transferring	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fuel system - transferring	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fuel system - transferring	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Hydraulic system - allowable types of fluid	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Hydraulic system - allowable types of fluid	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - allowable types of fluid	Can explain system or component limitations
Understand Hydraulic system - allowable types of fluid	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Hydraulic system - allowable types of fluid	Can explain immediate action items or memory items, if appropriate
Understand Hydraulic system - allowable types of fluid	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Understand Hydraulic system - allowable types of fluid	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Hydraulic system - allowable types of fluid	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Hydraulic system - capacity	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Hydraulic system - capacity	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - capacity	Can explain system or component limitations
Understand Hydraulic system - capacity	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Hydraulic system - capacity	Can explain immediate action items or memory items, if appropriate
Understand Hydraulic system - capacity	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Hydraulic system - capacity	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Hydraulic system - capacity	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Hydraulic system - pressure	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Hydraulic system - pressure	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - pressure	Can explain system or component limitations

Understand Hydraulic system - pressure	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Hydraulic system - pressure	Can explain immediate action items or memory items, if appropriate
Understand Hydraulic system - pressure	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Hydraulic system - pressure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Hydraulic system - pressure	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Hydraulic system - pumps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Hydraulic system - pumps	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - pumps	Can explain system or component limitations
Understand Hydraulic system - pumps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Hydraulic system - pumps	Can explain immediate action items or memory items, if appropriate
Understand Hydraulic system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Hydraulic system - pumps	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Hydraulic system - pumps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Hydraulic system - regulators/accumulators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Hydraulic system - regulators/accumulators	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - regulators/accumulators	Can explain system or component limitations
Understand Hydraulic system - regulators/accumulators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Hydraulic system - regulators/accumulators	Can explain immediate action items or memory items, if appropriate
Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Hydraulic system - regulators/accumulators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Hydraulic system - reservoirs	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Hydraulic system - reservoirs	Can describe the operation of the airplane systems and components using correct terminology
Understand Hydraulic system - reservoirs	Can explain system or component limitations
Understand Hydraulic system - reservoirs	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Hydraulic system - reservoirs	Can explain immediate action items or memory items, if appropriate
Understand Hydraulic system - reservoirs	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Understand Hydraulic system - reservoirs	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Hydraulic system - reservoirs	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - antiskid	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - antiskid	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - antiskid	Can explain system or component limitations
Understand Landing Gear - antiskid	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - antiskid	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - antiskid	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - antiskid	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - antiskid	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - brakes	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - brakes	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - brakes	Can explain system or component limitations

Understand Landing Gear - brakes	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - brakes	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - brakes	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - brakes	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - extension/retraction system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - extension/retraction system	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - extension/retraction system	Can explain system or component limitations
Understand Landing Gear - extension/retraction system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - extension/retraction system	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - extension/retraction system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - extension/retraction system	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - extension/retraction system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Landing Gear - indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - indicators	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - indicators	Can explain system or component limitations
Understand Landing Gear - indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - indicators	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - indicators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - nosewheel steering	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - nosewheel steering	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - nosewheel steering	Can explain system or component limitations
Understand Landing Gear - nosewheel steering	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - nosewheel steering	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - nosewheel steering	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Understand Landing Gear - nosewheel steering	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - shock absorbers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - shock absorbers	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - shock absorbers	Can explain system or component limitations
Understand Landing Gear - shock absorbers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - shock absorbers	Can explain immediate action items or memory items, if appropriate
Understand Landing Gear - shock absorbers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - shock absorbers	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - shock absorbers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Landing Gear - tires	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Landing Gear - tires	Can describe the operation of the airplane systems and components using correct terminology
Understand Landing Gear - tires	Can explain system or component limitations
Understand Landing Gear - tires	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Landing Gear - tires	Can explain immediate action items or memory items, if appropriate

Understand Landing Gear - tires	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Landing Gear - tires	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Landing Gear - tires	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Flight control jams.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Total loss of braking.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: TCAS alert
Understand Powerplant - turbine wheels	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - turbine wheels	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - turbine wheels	Can explain system or component limitations
Understand Powerplant - turbine wheels	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - turbine wheels	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - turbine wheels	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - turbine wheels	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Powerplant - turbine wheels	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - allowable types of oil	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - allowable types of oil	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - allowable types of oil	Can explain system or component limitations
Understand Powerplant - allowable types of oil	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - allowable types of oil	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - allowable types of oil	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - allowable types of oil	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - allowable types of oil	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Powerplant - compressors	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - compressors	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - compressors	Can explain system or component limitations
Understand Powerplant - compressors	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - compressors	Can explain immediate action items or memory items, if appropriate

Understand Powerplant - compressors	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - compressors	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - compressors	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Powerplant - controls and indications	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - controls and indications	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - controls and indications	Can explain system or component limitations
Understand Powerplant - controls and indications	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - controls and indications	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - controls and indications	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - controls and indications	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Powerplant - controls and indications - Engine Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - controls and indications - Pylon Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Powerplant - deicing, anti-icing	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - deicing, anti-icing	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - deicing, anti-icing	Can explain system or component limitations
Understand Powerplant - deicing, anti-icing	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - deicing, anti-icing	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - deicing, anti-icing	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - deicing, anti-icing	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - deicing, anti-icing	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Powerplant - oil system capacity and quantities	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - oil system capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - oil system capacity and quantities	Can explain system or component limitations
Understand Powerplant - oil system capacity and quantities	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - oil system capacity and quantities	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - oil system capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Understand Powerplant - oil system capacity and quantities	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - oil system capacity and quantities	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Powerplant - thrust reverse	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Powerplant - thrust reverse	Can describe the operation of the airplane systems and components using correct terminology
Understand Powerplant - thrust reverse	Can explain system or component limitations
Understand Powerplant - thrust reverse	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Powerplant - thrust reverse	Can explain immediate action items or memory items, if appropriate
Understand Powerplant - thrust reverse	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Powerplant - thrust reverse	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Powerplant - thrust reverse - Dispatch With Inoperative Thrust Reverser(s) On Wet Runways procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - thrust reverse - Thrust Reverser Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Powerplant - thrust reverse - Thrust Reverser Manual Stow Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

SIM 2 Tasks and Expectations

Tasks	Motor Skill Learning Objectives	Attitude Learning Objectives	Task Experience Rating
Conduct Circling Approach	Can comply with the circling approach procedure considering turbulence, windshear, and the maneuvering capability and approach category of the aircraft.		High
Conduct Circling Approach	Can confirm the direction of traffic and adhere to all restrictions and instructions issued by ATC.		High
Conduct Circling Approach	Can perform establishing the correct approach and landing configuration		High
Conduct Circling Approach	Can maintain a stabilized approach and a descent rate that ensures arrival at the MDA, or the preselected circling altitude above the MDA, prior to the missed approach point.		High
Conduct Circling Approach	Can maintain airspeed ±5 knots, desired heading/track ±5°, and altitude +100/-0 feet until descending below the MDA or the preselected circling altitude above the MDA.		High
Conduct Circling Approach	Can perform visually maneuvering to a base or downwind leg appropriate for the landing runway and environmental conditions.		High
Conduct Circling Approach	Can perform a turn in the appropriate direction using the correct procedure and execute configuring the airplane if a missed approach occurs		High

Conduct Circling Approach		Can identify, assess, and manage risks, encompassing failure to follow prescribed circling approach procedures.	High
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing executing a circling approach at night or with marginal visibility.	High
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing losing visual contact with an identifiable part of the airport.	High
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	High
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing failure to	High

		maintain an appropriate altitude or airspeed while circling.	
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Circling Approach		Can identify, assess, and manage risks, encompassing executing an improper missed approach after the MAP while circling.	High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure	Can execute procedure with smoothness and accuracy		High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure	Can operate the airplane within its limitations		High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct Dual Hydraulic System (L SYS and R SYS)		Can apply aeronautical knowledge to	High

Failure - AUX Pump Available procedure		execution of the task	
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can apply crew coordination	High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can conduct effective communicatio n with the other crew members	High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can manage crew cooperation	High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct Dual Hydraulic System (L SYS and R SYS) Failure - AUX Pump Available procedure		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Dual Hydraulic System (L SYS and R SYS)		Can demonstrate good judgement	High

Failure - AUX Pump Available procedure		and airmanship	
Conduct EFVS Operations		When using the EFVS, can demonstrate familiarization with the interpretation of the display to ensure proper identification of the runway and positioning of the aircraft relative to continuation of the approach to landing. Pilots should understand the limitations of these systems, operational credits available, and authorization required for use. For more information on EFVS, refer to AC 90-106.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can recognize and correctly identify powerplant failure, execute memory items, and maintain positive airplane control.		High

Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can coordinate with crew and execute the appropriate emergency procedures and checklist(s) for propeller feathering or powerplant shutdown.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can determine the cause for the powerplant failure and assess if a restart is a viable option.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can maintain the operating powerplant(s) within acceptable operating limits.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can maintain airspeed ±10 knots, specified heading ±10° and altitude ±100 feet as specified		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can assess powerplant restart and, if appropriate, demonstrate the powerplant restart procedures in accordance with the manufacturer or operator specified procedures and checklists.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can select the nearest suitable airport or landing area.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart	Can perform communication with ATC as appropriate for the situation.		High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing failure to plan	High

		for a powerplant failure during flight.	
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing failure to follow checklist procedures for a powerplant failure or a powerplant restart.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing incorrect diagnosis of the cause of the powerplant failure.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct Emergency Procedure - Inflight		Can identify, assess, and manage risks,	High

Powerplant Failure and Restart		encompassing improper airplane configuration.	
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing factors and situations that could lead to an inadvertent stall, spin, and loss of control with an inflight powerplant failure.	High
Conduct Emergency Procedure - Inflight Powerplant Failure and Restart		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Holding	Can identify instrument navigation aids associated with the assigned hold.		High
Conduct Holding	Can apply the appropriate entry procedure for a standard, nonstandard, published, or non- published holding pattern.		High
Conduct Holding	Can change to the appropriate holding airspeed for the airplane and holding altitude to cross the holding fix at or below maximum holding airspeed		High
Conduct Holding	Can comply with the holding pattern leg length and other restrictions, if applicable,		High

	associated with the holding pattern.		
Conduct Holding	Can comply with ATC reporting requirements.		High
Conduct Holding	Can use proper wind correction procedures to maintain the desired pattern and to arrive over the fix as close as possible to a specified time.		High
Conduct Holding	Can maintain the airspeed ±10 knots, altitude ±100 feet, headings ±10°, and accurately track a selected course, radial, or bearing.		High
Conduct Holding	Can use automation to include autopilot, flight director controls, and navigation displays associated with the assigned hold.		High
Conduct Holding	Can calculate fuel reserve calculations based on EFC times.		High
Conduct Holding		Can identify, assess, and manage risks, encompassing recalculating fuel reserves if assigned an unanticipated EFC time.	High
Conduct Holding		Can identify, assess, and manage risks, encompassing scenarios and circumstances that could result in minimum fuel or the need to declare an emergency.	High

Conduct Holding		Can describe scenarios that could lead to holding, including deteriorating weather at the planned destination.	High
Conduct Holding		Can identify, assess, and manage risks, encompassing improper holding entry and improper wind correction while holding.	High
Conduct Holding		Can identify, assess, and manage risks, encompassing holding while in icing conditions.	High
Conduct Holding		Can identify, assess, and manage risks, encompassing improper automation management.	High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure	Can execute procedure with smoothness and accuracy		High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG)	Can operate the airplane within its limitations		High

On With Both Hydraulic Systems Operating procedure			
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can apply aeronautical knowledge to execution of the task	High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can apply crew coordination	High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can conduct effective communication with the other crew members	High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can manage crew cooperation	High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both		Can maintain a general survey of the aircraft operation by	High

Hydraulic Systems Operating procedure		appropriate supervision	
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct ILS approach and Landing With The Standby Electrical Power System (HMG) On With Both Hydraulic Systems Operating procedure		Can demonstrate good judgement and airmanship	High
Conduct Jammed Aileron Procedure	Can execute procedure with smoothness and accuracy		High
Conduct Jammed Aileron Procedure	Can operate the airplane within its limitations		High
Conduct Jammed Aileron Procedure	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct Jammed Aileron Procedure		Can apply aeronautical knowledge to execution of the task	High
Conduct Jammed Aileron Procedure		Can apply crew coordination	High
Conduct Jammed Aileron Procedure		Can conduct effective	High

		communication with the other crew members	
Conduct Jammed Aileron Procedure		Can manage crew cooperation	High
Conduct Jammed Aileron Procedure		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct Jammed Aileron Procedure		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Jammed Aileron Procedure		Can demonstrate good judgement and airmanship	High
Conduct Jammed Elevator Procedure	Can execute procedure with smoothness and accuracy		High
Conduct Jammed Elevator Procedure	Can operate the airplane within its limitations		High
Conduct Jammed Elevator Procedure	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High

Conduct Jammed Elevator Procedure		Can apply aeronautical knowledge to execution of the task	High
Conduct Jammed Elevator Procedure		Can apply crew coordination	High
Conduct Jammed Elevator Procedure		Can conduct effective communication with the other crew members	High
Conduct Jammed Elevator Procedure		Can manage crew cooperation	High
Conduct Jammed Elevator Procedure		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct Jammed Elevator Procedure		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Jammed Elevator Procedure		Can demonstrate good judgement and airmanship	High

Conduct Landing From a Circling Approach	Can maintain the airport environment in sight and remain within the circling approach radius applicable to the approach category to a position from which a stabilized descent to landing can be made.		High
Conduct Landing From a Circling Approach	Can comply with all ATC advisories, such as NOTAMs, windshear, wake turbulence, runway surface, braking conditions, and other operational considerations.		High
Conduct Landing From a Circling Approach	Can perform alignment of the airplane for a normal landing on the selected runway without excessive maneuvering and without exceeding the normal operating limits of the airplane. The angle of bank should not exceed 30°.		High
Conduct Landing From a Circling Approach	Can perform smooth, timely, and correct control application throughout the circling maneuver and maintain appropriate airspeed, ±5 knots. If applicable, maintain altitude +100/−0 feet, and desired heading/track, ±5°.		High
Conduct Landing From a Circling Approach	Can confirm the airplane is configured for landing.		High
Conduct Landing From a Circling Approach	Can scan the landing runway and adjoining area for traffic and obstructions		High
Conduct Landing From a Circling Approach	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the		High

	approach threshold of the runway		
Conduct Landing From a Circling Approach	Can maintain positive aircraft control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		High
Conduct Landing From a Circling Approach	Can demonstrate SRM or CRM, as appropriate.		High
Conduct Landing From a Circling Approach	Can apply runway incursion avoidance procedures.		High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing landing from a circling approach	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing selection of an approach procedure and runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing	High

		wake turbulence.	
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for missed approach	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for land and hold short operations (LAHSO)	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for low altitude maneuvering including stall, spin, or CFIT.	High

Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for distractions, loss of situational awareness, or improper task management.	High
Conduct Landing From a Circling Approach		Can identify, assess, and manage risks, encompassing planning for attempting to land from an unstable approach.	High
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can perform non-normal configuration approaches and landings in instrument conditions. For these approaches, the simulated weather minima may be above, or well above, the lowest minima authorized. Minima should be at levels that might typically be experienced in line operations for a landing with the non-normal condition used. During these approaches, representative autoflight, instrument, and aircraft system configurations or combinations of configurations should be demonstrated (e.g., F/D, autopilot, HUD, vision systems, autothrottles, raw data, and inoperative electrical or hydraulic components).		High

Conduct Landing from a No Flap or Nonstandard Flap Approach	Can recognize the malfunction.		High
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can coordinate with crew, if applicable, and complete applicable checklist(s) for the malfunction, approach, and landing.		High
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can coordinate with ATC as needed and select an airport/runway with sufficient length for landing.		High
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can calculate the correct airspeeds/V-speeds for approach and landing.		High
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can perform establishing the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required to maintain a stabilized approach.		High
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can select a suitable touchdown point considering wind, landing surface, and obstructions.		High
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can perform smooth, timely, and correct control application before, during, and after touchdown.		High
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High
Conduct Landing from a No Flap or Nonstandard Flap Approach	Can maintain positive aircraft control throughout the landing using drag and braking		High

	devices, as appropriate, to come to a stop.		
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing hazards associated with a no flap or nonstandard flap approach and landing to include an asymmetrical flap situation.	High
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing selection of a runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	High
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing wake turbulence.	High
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing go-	High

		around/rejected landing.	
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Landing from a No Flap or Nonstandard Flap Approach		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct a Landing with Pitch Mistrim	Can recognize the malfunction.		High
Conduct a Landing with Pitch Mistrim	Can coordinate with crew, if applicable, and complete applicable checklist(s) for the malfunction, approach, and landing.		High

Conduct a Landing with Pitch Mistrim	Can coordinate with ATC as needed and select an airport/runway with sufficient length for landing.		High
Conduct a Landing with Pitch Mistrim	Can calculate the correct airspeeds/V-speeds for approach and landing.		High
Conduct a Landing with Pitch Mistrim	Can perform establishing the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required to maintain a stabilized approach.		High
Conduct a Landing with Pitch Mistrim	Can select a suitable touchdown point considering wind, landing surface, and obstructions.		High
Conduct a Landing with Pitch Mistrim	Can perform smooth, timely, and correct control application before, during, and after touchdown.		High
Conduct a Landing with Pitch Mistrim	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High
Conduct a Landing with Pitch Mistrim	Can maintain positive aircraft control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		High
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing hazards associated with a pitch mistrim	High

		approach and landing.	
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing selection of a runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	High
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing wake turbulence.	High
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing go-around/rejected landing.	High
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels,	High

		persons, and wildlife.	
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct a Landing with Pitch Mistrim		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Missed Approach	Can execute a missed approach from the MDA, DA/DH, or AH.		High
Conduct Missed Approach	Can execute a missed approach from a low altitude that could result in a touchdown during go-around (balked or rejected landing).		High
Conduct Missed Approach	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance.		High
Conduct Missed Approach	Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and initiate a positive rate of climb at the appropriate airspeed/V-speed, ±5 knots.		High

Conduct Missed Approach	Can coordinate with crew and execute the appropriate procedures and checklist(s) in a timely manner.		High
Conduct Missed Approach	Can comply with the published or alternate missed approach procedure.		High
Conduct Missed Approach	Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		High
Conduct Missed Approach	Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure.		High
Conduct Missed Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		High
Conduct Missed Approach	Can demonstrate effective CRM		High
Conduct Missed Approach	Can execute re-engagement of the autopilot at appropriate times during the missed approach procedure.		High
Conduct Missed Approach	Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix, or other clearance limit, as appropriate, or as directed by the evaluator.		High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to follow prescribed procedures.	High
Conduct Missed Approach		Can identify, assess, and manage risks,	High

		encompassing holding, diverting, or electing to fly the approach again.	
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing factors that might lead to executing a missed approach procedure before the MAP or to a go-around below DA/MDA.	High
Conduct Missed Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems.	High

Conduct Nonprecision Approach		Can appreciate that there are environments in which using CDFA technique is not advisable or practical, for example airports that do not offer straight in non-precision approaches.	High
Conduct Nonprecision Approach	Can perform the nonprecision instrument approaches selected by the instructor/evaluator		High
Conduct Nonprecision Approach	Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		High
Conduct Nonprecision Approach	Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		High
Conduct Nonprecision Approach	Can Comply with all clearances issued by ATC.		High
Conduct Nonprecision Approach	Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		High
Conduct Nonprecision Approach	Can coordinate with ATC if unable to comply with a clearance.		High
Conduct Nonprecision Approach	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		High

Conduct Nonprecision Approach	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High
Conduct Nonprecision Approach	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		High
Conduct Nonprecision Approach	Can maintain a stabilized descent to the appropriate altitude.		High
Conduct Nonprecision Approach	Can maintain no more than ¼ scale CDI deflection, airspeed ±5 knots of selected value, and altitude above MDA +50/-0 feet (to the VDP or MAP) during the final approach segment		High
Conduct Nonprecision Approach	Can execute the missed approach procedure if the required visual references are not distinctly visible and identifiable at the appropriate point or altitude for the approach profile, or execute a normal landing from a straight-in or circling approach.		High
Conduct Nonprecision Approach	Can use a Multi-Function Display (MFD) and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		High

Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to follow the correct approach procedure (e.g., descending too early, etc.).	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Selecting an incorrect navigation frequency.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to manage automated navigation and auto flight systems.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to ensure proper airplane configuration during an approach and missed approach.	High

Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing An unstable approach, including excessive descent rates.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Deteriorating weather conditions on approach.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Operating below the minimum descent altitude (MDA) or continuing a descent below decision altitude (DA) without proper visual references.	High
Conduct Visual Approach (VFR Procedures)	Can conduct a visual approach.		High

Conduct Taxi	Low visibility taxi and ground operations should be trained to the extent practical and beneficial. Such training should address operations at typical airports or alternately, at airports frequently experiencing low-visibility conditions, complex airports on the operator's route system, airports with particular low visibility ground movement difficulties, or rarely used but significant contingency airports, as determined appropriate by the operator.		High
Conduct Taxi	perform either PF or PM duties, unless otherwise limited by the operator's policies or aircraft characteristics (e.g., single HUD).		High
Conduct Taxi	Can record taxi instructions, respond to taxi clearances, and review taxi routes on the airport diagram.		High
Conduct Taxi	Can use an airport diagram or taxi chart during taxi		High
Conduct Taxi	Can comply with ATC clearances and instructions and observe all runway hold lines, ILS critical areas, beacons, and other airport/taxiway markings and lighting		High
Conduct Taxi	Can coordinate with crew, if applicable, and complete the appropriate checklist(s) prior to and during taxi		High
Conduct Taxi	Can maintain situational awareness during taxi		High
Conduct Taxi	Can maintain correct and positive airplane control, proper speed, appropriate use		High

	of wheel brakes and reverse thrust		
Conduct Taxi	Can maintain separation between other aircraft, vehicles, and persons to avoid an incursion/incident/accident		High
Conduct Taxi	Can use aircraft exterior lighting for day and night operations		High
Conduct Taxi		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing a taxi route or departure runway change	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing	High

		low visibility taxi operations	
Conduct Taxi		Can conduct a briefing on the timing and execution of aircraft checklists and company communications at the appropriate times and locations, ensuring the pilot who is not taxiing the aircraft can be available to participate in verbal coordination with the pilot who is taxiing the aircraft	High
Conduct Taxi		Can consider the anticipated duration of the taxi operation, the locations of hot spots/complex intersections and runway crossings, and the visibility along the taxi route when briefing tasks or	High

		accomplishing checklists	
Conduct Taxi		Can manage pilot workload and heads-down time during taxi by conducting predeparture checklists, including setting the takeoff flap setting, when the aircraft is stopped or while taxiing straight ahead on a taxiway without complex intersections and hot spots	High
Conduct Taxi		Can maintain a sterile cockpit during taxi operations	High
Conduct Taxi	Can use airport diagram to follow progress of the taxi operation		High
Conduct Taxi		Can manage the risk of expectation bias, and follow the clearance or instructions that are actually received, and	High

		not the ones they expected to receive.	
Conduct Taxi		Can be alert to ATC instructions to hold short of an ILS critical area holding line.	High
Conduct Taxi		Can monitor the aircraft’s progress on the airport diagram to ensure that the pilot taxiing the aircraft is following the instructions received from the ATC while maintaining outside vigilance	High
Conduct Taxi		Can determine whether or not to accept last-minute turnoff instructions from ATC, refusing such clearance unless the crew clearly understands the instructions and are certain that they can	High

		safely comply.	
Conduct Taxi		Can respond to all hold short instructions, and verifies with other crew members or ATC to ensure agreement and understanding	High
Conduct Taxi	Can execute bringing the aircraft to a complete stop, or be in a phase of taxiing that has no risk of a runway incursion before continuing with operational duties and checklists		High
Conduct Taxi		Can comply with hold short or crossing clearance when approaching an entrance to a runway.	High
Conduct Taxi		Can explain or demonstrate proper actions if the crew becomes disoriented: never stop on a runway, and initiate communications with ATC	High

		to regain orientation.	
Conduct Taxi		Can demonstrate vigilance when instructed to taxi and “Line Up and Wait”. Turns Traffic Alert and Collision Avoidance System (TCAS)/traffic advisory systems (TAS) on in order obtain awareness of any aircraft that may be landing on your runway.	High
Conduct Taxi		Can resolve all misunderstandings or disagreements regarding taxi clearance to the satisfaction of all flightcrew members before taxiing the aircraft.	High
Conduct Taxi	Can apply use of the airport diagram after receiving a clearance, and confirms and verbalizes the assigned runway and taxi route, including any instructions to hold short of, or cross, a		High

	runway. If there is any doubt, speaks up and resolve the uncertainty before taxi		
Conduct Taxi		Can coordinate with other flightcrew member(s) if stopping and resuming the monitoring of the ATC frequency, for example when it becomes necessary for a flightcrew member to stop monitoring any ATC frequency to prepare the aircraft for takeoff or landing.	High
Conduct Taxi		Can assess any upcoming hold short instructions or clearances that could be misinterpreted prior to stopping and after resuming monitoring of the taxi. An example may include: "I'm	High

		heads-down, right turn ahead at Alpha," or "I'm back, any changes?"	
Conduct Taxi		Can appreciate that time away from monitoring ATC should be avoided with complex taxi routing or crossing of runways. Any instructions or information received or transmitted during that flightcrew member's absence from the ATC frequency should be reviewed and confirmed upon his or her return.	High
Conduct Taxi		Can coordinate verbally at complex intersections to be sure that: the intersection is correctly identified and confirmed using the	High

		airport diagram and the heading indicator	
Conduct Taxi		Can state “approaching (specific runway number) hold short line. Before crossing any hold short line, the flightcrew should visually scan to the left and to the right, including the full length of the runway and its approach paths, and coordinate verbally (e.g., “clear right/left” or that the scan area is not clear).	High
Conduct Taxi		Can coordinate verbally and agree on the runway assigned by ATC, the upcoming assigned exit, and any restrictions, such as hold short points	High

		of an intersecting runway and the aircraft's parking area after landing	
Conduct Taxi	Can execute turning on the rotating beacon whenever an engine is running		High
Conduct Taxi	Can execute turning on navigation, position, anti-collision, and logo lights, if available, to signal intent to other pilots prior to commencing taxi		High
Conduct Taxi	Can execute turning on the taxi light when the aircraft is moving or intending to move on the ground, and turning it off when stopped or yielding or as a consideration to other pilots or ground personnel		High
Conduct Taxi	Can execute illuminating all lights when crossing a runway when appropriate		High
Conduct Taxi		Can consider any adverse effects to safety that illuminating the forward-facing lights will have on the vision of other pilots or ground personnel during runway crossings, and adjust operation accordingly	High

Conduct TCAS Resolution Advisory (RA)	Can respond to the RA with positive control inputs, when required, while the PM provides updates on the traffic location and cross-checks between the traffic display and monitors the response to the RA		High
Conduct TCAS Resolution Advisory (RA)	Can interpret the displayed information, and recognize the intruder causing the issuance of the RA (red square on display).		High
Conduct TCAS Resolution Advisory (RA)	Can respond to the corrective RA in the proper direction within 5 seconds of the RA being displayed		High
Conduct TCAS Resolution Advisory (RA)	Can respond to a change in the initially displayed RA withing 2.5 seconds		High
Conduct TCAS Resolution Advisory (RA)	Can recognize and respond to altitude crossing RAs		High
Conduct TCAS Resolution Advisory (RA)	Can respond to preventive RAs by ensuring the VS needle remains outside the red area on the RA display.		High
Conduct TCAS Resolution Advisory (RA)	Can maintain vertical speed during "maintain rate" Ras		High
Conduct TCAS Resolution Advisory (RA)	Can recognize that a maintain rate RA may result in crossing through the intruder’s altitude.		High
Conduct TCAS Resolution Advisory (RA)		Can appreciate that if a decision is made to not follow an RA, no changes in the existing VS are made in a direction opposite to the sense of	High

		the displayed RA. Pilots should be aware that if the intruder is also TCAS equipped, the decision to not follow an RA may result in a decrease in separation at CPA because of the intruder's RA response	
Conduct TCAS Resolution Advisory (RA)	Can execute a return towards the original clearance when the RA weakens, and when clear of conflict is annunciated, pilot executes a complete the return to the original clearance		High
Conduct TCAS Resolution Advisory (RA)		Can inform the controller of the RA as soon as time and workload permit, using the standard phraseology	High
Conduct TCAS Resolution Advisory (RA)	Can comply with an ATC clearance while responding to an RA when possible. (For example, if the aircraft can level at the assigned altitude while responding to a reduce climb or reduce descent RA, it should be done)		High
Conduct TCAS Resolution Advisory (RA)		Can appreciate that If pilots simultaneousl y receive	High

		instructions to maneuver from ATC and an RA that are in conflict, the pilot should follow the RA.	
Conduct TCAS Resolution Advisory (RA)		Can appreciate that TCAS only considers intruders that it believes to be a threat when selecting an RA. As such, it is possible for TCAS to issue an RA against one intruder that results in a maneuver towards another intruder that is not classified as a threat. If the second intruder becomes a threat, the RA will be modified to provide separation from that intruder.	High

Conduct TCAS Resolution Advisory (RA)		Can appreciate the consequences of both responding to, and not responding to, an RA	High
Conduct TCAS Traffic Advisory (TA)		Can confirm that the aircraft they have visually acquired is that which has caused the TA to be issued	High
Conduct TCAS Traffic Advisory (TA)	Can use all information shown on the display, and interpret bearing and range of the intruder (amber circle), whether it is above or below (data tag), and its VS direction (trend arrow).		High
Conduct TCAS Traffic Advisory (TA)	Can use other available information is used to assist in visual acquisition. This includes ATC party-line information, traffic flow in use, etc.		High
Conduct TCAS Traffic Advisory (TA)		Can appreciate that the PF should not maneuver the aircraft based solely on the information shown on the TCAS display. No attempt should be made to adjust the	High

		current flightpath in anticipation of what an RA would advise.	
Conduct TCAS Traffic Advisory (TA)		Can appreciate the limitations of making maneuvers based solely on visual acquisition, especially at high altitude or without a definite horizon	High
Conduct TCAS Traffic Advisory (TA)		Can take account of traffic advisory while preparing for a potential resolution advisory (pilot flying)	High
Conduct TCAS Traffic Advisory (TA)		Can monitor traffic location shown on the TCAS display, using this information to help visually acquire the intruder.	High
Conduct use of HUD	Conduct takeoff and departure using HUD to ATP ACS standards		High

Conduct use of HUD	Conduct approach and landing using HUD to ATP ACS standards		High
Conduct use of HUD	Can use caged, uncaged and clear modes in crosswind conditions		High
Conduct use of HUD	Can use the flare symbol as a cue in the Honeywell HUD Model 2020 and as guidance in the HUD II.		High
Conduct use of HUD	Can perform TCAS RA using HUD		High
Conduct use of lateral control switch (GIV-X)	Can use lateral control switch and explain functionality		High
Conduct use of PlaneView System, if applicable	Can perform use of the PlaneView system installed in the full flight training equipment		High
Conduct use of TCAS	Can demonstrate the proper use of controls including aircraft configuration required to initiate a self-test.		High
Conduct use of TCAS	Can demonstrate the proper use of controls including steps required to initiate a self-test.		High
Conduct use of TCAS	Can demonstrate the proper use of controls including recognizing when the self-test was successful and when it was unsuccessful. When the self-test is unsuccessful, recognizing the reason for the failure, and if possible, correcting the problem.		High
Conduct use of TCAS	Can perform the procedures specified in AC120-55C		High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)	Can execute procedure with smoothness and accuracy		High

Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)	Can operate the airplane within its limitations		High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can apply aeronautical knowledge to execution of the task	High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can apply crew coordination	High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can conduct effective communicatio n with the other crew members	High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can manage crew cooperation	High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can maintain a general survey of the aircraft operation by appropriate supervision	High

Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Nose Wheel Steering (NWS) Failure on landing (prior to completion of before landing checklist)		Can demonstrate good judgement and airmanship	High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind	Can execute procedure with smoothness and accuracy		High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind	Can operate the airplane within its limitations		High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can apply aeronautical knowledge to execution of the task	High

Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can apply crew coordination	High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can conduct effective communicatio n with the other crew members	High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can manage crew cooperation	High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with minimum 15 kt crosswind		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Nose Wheel Steering (NWS) Failure on landing upon touchdown with		Can demonstrate good judgement	High

minimum 15 kt crosswind		and airmanship	
Understand Auxiliary Power Unit (APU)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Auxiliary Power Unit (APU)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Auxiliary Power Unit (APU)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Auxiliary Power Unit (APU)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - traffic awareness/warning/avoidance systems		Can appreciate that system limitations include the inability of TCAS to detect	High

		nontransponder-equipped aircraft, no RAs issued for traffic without an altitude-reporting transponder	
Understand Avionics and communications - traffic awareness/warning/avoidance systems		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - traffic awareness/warning/avoidance systems		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Avionics and communications - traffic awareness/warning/avoidance systems		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - traffic awareness/warning/avoidance systems		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Understand Electrical System - circuit breakers and protection devices		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Electrical System - circuit breakers and protection devices		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Electrical System - circuit breakers and protection devices		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Electrical System - circuit breakers and protection devices		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Electrical System - controls		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Electrical System - controls		Can identify, assess, and manage risks	High

		encompassing failure to follow appropriate checklists or procedures	
Understand Electrical System - controls		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Electrical System - controls		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Electrical System - external and auxiliary power sources. (ground power and APU)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Electrical System - external and auxiliary power sources. (ground power and APU)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Electrical System - external and auxiliary power sources. (ground power and APU)		Can identify, assess, and manage risks encompassing improper	High

		management of a system failure	
Understand Electrical System - external and auxiliary power sources. (ground power and APU)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Electrical System - generators		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Electrical System - generators		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Electrical System - generators		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Electrical System - generators		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Electrical System - indicators		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Electrical System - indicators		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Electrical System - indicators		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Electrical System - indicators		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Electrical System -batteries		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Electrical System -batteries		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Electrical System -batteries		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Electrical System -batteries		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - elevator		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - elevator		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Flight Controls - elevator		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - elevator		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - flaps		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - flaps		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - flaps		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - flaps		Can identify, assess, and manage risks	High

		encompassing failure to monitor and manage automated systems.	
Understand Flight Controls - rudder		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - rudder		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - rudder		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - rudder		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - speed brakes		Can identify, assess, and manage risks encompassing failure to	High

		detect system malfunctions or failures.	
Understand Flight Controls - speed brakes		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - speed brakes		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - speed brakes		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - spoilers		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - spoilers		Can identify, assess, and manage risks encompassing failure to follow appropriate	High

		checklists or procedures	
Understand Flight Controls - spoilers		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - spoilers		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - stability augmentation system (e.g., yaw damper)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - stability augmentation system (e.g., yaw damper)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - stability augmentation system (e.g., yaw damper)		Can identify, assess, and manage risks encompassing improper management of a system failure	High

Understand Flight Controls - stability augmentation system (e.g., yaw damper)		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Flight Controls - Ailerons		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - Ailerons		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - Ailerons		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - Ailerons		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Understand Flight Controls - trim systems		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Flight Controls - trim systems		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Flight Controls - trim systems		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Flight Controls - trim systems		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - additives		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - additives		Can identify, assess, and manage risks	High

		encompassing failure to follow appropriate checklists or procedures	
Understand Fuel system - additives		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - additives		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - capacity and quantities		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - capacity and quantities		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - capacity and quantities		Can identify, assess, and manage risks encompassing improper	High

		management of a system failure	
Understand Fuel system - capacity and quantities		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - controls and indicators		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - controls and indicators		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - controls and indicators		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - controls and indicators		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Fuel system - cross-feeding		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - cross-feeding		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - cross-feeding		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - cross-feeding		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - drains		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Fuel system - drains		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - drains		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - drains		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - fuel grade		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - fuel grade		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Fuel system - fuel grade		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - fuel grade		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - fuel substitutions		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - fuel substitutions		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - fuel substitutions		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - fuel substitutions		Can identify, assess, and manage risks	High

		encompassing failure to monitor and manage automated systems.	
Understand Fuel system - fueling and defueling procedures		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - fueling and defueling procedures		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - fueling and defueling procedures		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - fueling and defueling procedures		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - pumps		Can identify, assess, and manage risks encompassing failure to	High

		detect system malfunctions or failures.	
Understand Fuel system - pumps		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fuel system - pumps		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - pumps		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fuel system - transferring		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fuel system - transferring		Can identify, assess, and manage risks encompassing failure to follow appropriate	High

		checklists or procedures	
Understand Fuel system - transferring		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fuel system - transferring		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Hydraulic system - allowable types of fluid		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Hydraulic system - allowable types of fluid		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Hydraulic system - allowable types of fluid		Can identify, assess, and manage risks encompassing improper management of a system failure	High

Understand Hydraulic system - allowable types of fluid		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Hydraulic system - capacity		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Hydraulic system - capacity		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Hydraulic system - capacity		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Hydraulic system - capacity		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Understand Hydraulic system - pressure		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Hydraulic system - pressure		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Hydraulic system - pressure		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Hydraulic system - pressure		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Hydraulic system - pumps		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Hydraulic system - pumps		Can identify, assess, and manage risks	High

		encompassing failure to follow appropriate checklists or procedures	
Understand Hydraulic system - pumps		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Hydraulic system - pumps		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Hydraulic system - regulators/accumulators		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Hydraulic system - regulators/accumulators		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Hydraulic system - regulators/accumulators		Can identify, assess, and manage risks encompassing improper	High

		management of a system failure	
Understand Hydraulic system - regulators/accumulators		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Hydraulic system - reservoirs		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Hydraulic system - reservoirs		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Hydraulic system - reservoirs		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Hydraulic system - reservoirs		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Landing Gear - antiskid		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - antiskid		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Landing Gear - antiskid		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - antiskid		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Landing Gear - brakes		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Landing Gear - brakes		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Landing Gear - brakes		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - brakes		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Landing Gear - extension/retraction system		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - extension/retraction system		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Landing Gear - extension/retraction system		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - extension/retraction system		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Landing Gear - indicators		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - indicators		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Landing Gear - indicators		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - indicators		Can identify, assess, and manage risks	High

		encompassing failure to monitor and manage automated systems.	
Understand Landing Gear - nosewheel steering		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - nosewheel steering		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Landing Gear - nosewheel steering		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - nosewheel steering		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Landing Gear - shock absorbers		Can identify, assess, and manage risks encompassing failure to	High

		detect system malfunctions or failures.	
Understand Landing Gear - shock absorbers		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Landing Gear - shock absorbers		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - shock absorbers		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Landing Gear - tires		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Landing Gear - tires		Can identify, assess, and manage risks encompassing failure to follow appropriate	High

		checklists or procedures	
Understand Landing Gear - tires		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Landing Gear - tires		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Powerplant - turbine wheels		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - turbine wheels		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Powerplant - turbine wheels		Can identify, assess, and manage risks encompassing improper management of a system failure	High

Understand Powerplant - turbine wheels		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Powerplant - allowable types of oil		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - allowable types of oil		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Powerplant - allowable types of oil		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - allowable types of oil		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Understand Powerplant - compressors		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - compressors		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Powerplant - compressors		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - compressors		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Powerplant - controls and indications		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - controls and indications		Can identify, assess, and manage risks	High

		encompassing failure to follow appropriate checklists or procedures	
Understand Powerplant - controls and indications		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - controls and indications		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Powerplant - deicing, anti-icing		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - deicing, anti-icing		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Powerplant - deicing, anti-icing		Can identify, assess, and manage risks encompassing improper	High

		management of a system failure	
Understand Powerplant - deicing, anti-icing		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Powerplant - oil system capacity and quantities		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - oil system capacity and quantities		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Powerplant - oil system capacity and quantities		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - oil system capacity and quantities		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Powerplant - thrust reverse		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Powerplant - thrust reverse		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Powerplant - thrust reverse		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Powerplant - thrust reverse		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Conduct EFVS Operations	Per § 61.66(b)(2)(i) can integrate the following: it is necessary that the flight training curriculum includes preflight and in-flight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes, and associated systems, and adjustments for brightness and contrast under day and night conditions. It may be beneficial to perform these tasks in the curriculum using either the manufacturer's recommended procedures or procedures applicable to the operator.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(ii) can integrate the following: it is necessary that the flight training curriculum includes proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings. It may be beneficial for the curriculum to allow pilots to become familiar with the use of installed equipment such as an EFVS in all phases of flight.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can use a sample of approach types for the EFVS operation being trained (e.g., precision and nonprecision, if applicable).		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) use a sample of crosswind conditions and offset angles that emphasize the challenges		High

	of operating with the limited FOV with an EFVS.		
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can conduct EFVS operations in visibilities less than IAP minimum visibilities. This may not be practical if training is conducted in an aircraft. If the training is accomplished in a full flight simulator (FFS), conduct the training with the enhanced visibilities representative of the EFVS sensor performance.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iv) can integrate the following: it is necessary that the flight training curriculum includes determining enhanced flight visibility. The curriculum can help pilots learn how to determine enhanced flight visibility using techniques and methods similar to the techniques and methods used for determining flight visibility when conducting an approach without an EFVS.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(v) can integrate the following: it is necessary that the flight training curriculum includes identifying required visual references appropriate to EFVS operations. The curriculum can help pilots learn how to identify required visual references using an EFVS with techniques and methods similar to the techniques and methods used for identifying the required visual references when		High

	conducting an approach without the use of an EFVS. The PM may use the PM display, if available, to assist the PF in this task.		
Conduct EFVS Operations	Per § 61.66(b)(2)(vi) can integrate the following: it is necessary that the flight training curriculum includes transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment. The curriculum can help pilots learn how to acquire visual references with natural vison at 100 feet during an EFVS-100 operation. There are many acceptable techniques for identifying the visual references with natural vision while the pilot continues using the EFVS to provide the enhanced flight visibility required for the operation.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) use procedures applicable to the PF and PM, crew briefings, procedures, callouts, and coordination items for EFVS operations, including annunciation of published minimums during operation below the DA/DH or MDA.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct procedures at 100		High

	feet during an EFVS-100 operation.		
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct EFVS failure procedures (procedures for an EFVS failure or a system degradation during an EFVS operation).		High
Conduct EFVS Operations	Can conduct preflight and inflight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes and associated systems, and adjustments for brightness and contrast under day and night conditions.		High
Conduct EFVS Operations	Can use proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings.		High
Conduct EFVS Operations	Can use proper piloting techniques for the use of EFVS during instrument ap proaches, to include operations below DA/DH or MDA as applicable to the EFVS operations to be conducted, under both day and night conditions.		High
Conduct EFVS Operations	Can determine enhanced flight visibility.		High
Conduct EFVS Operations	Can identify required visual references appropriate to EFVS operations.		High
Conduct EFVS Operations	Can adjust when transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment.		High

Conduct EFVS Operations	Can conduct normal, abnormal, emergency, and crew coordination procedures when using an EFVS.		High

SIM 3 Learning Objectives

SIM 3 Briefing Items

Tasks	Knowledge & Cognitive Learning Objectives
Conduct Emergency Procedure - Airframe icing	Can explain actions required if icing conditions exceed the capabilities of the airplane.
Conduct Emergency Procedure - Airframe icing	Can explain declaring an emergency and selection of a suitable airport or landing location
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain flight characteristics and controllability associated with maneuvering to a landing with inoperative powerplant(s).
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain go-around/rejected landing procedures with a powerplant failure.
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can explain how to determine a suitable airport.
Conduct Emergency Procedure - Decompression	Can explain airplane decompression.
Conduct Emergency Procedure - Decompression	Can explain declaring an emergency and selection of a suitable airport or landing location
Conduct Emergency Procedure - Emergency Decent	Can explain situations that would require an emergency descent (e.g., depressurization, smoke, or engine fire).
Conduct Emergency Procedure - Emergency Decent	Can explain declaring an emergency and selection of a suitable airport or landing location
Conduct Emergency Procedure - Emergency evacuation	Can explain when an emergency evacuation may be necessary.
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can explain declaring an emergency and selection of a suitable airport or landing location
Conduct Emergency Procedure - Inflight fire and smoke	Can explain causes of inflight fire or smoke.

Conduct Emergency Procedure - Inflight fire and smoke	Can explain declaring an emergency and selection of a suitable airport or landing location
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can explain the procedures used during a powerplant failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required.
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can explain operational considerations to include: airplane performance, takeoff warning systems, runway length, surface conditions, density altitude, wake turbulence, environmental conditions, obstructions
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can explain the procedures used during a powerplant failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required.
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can explain operational considerations to include: airplane performance, takeoff warning systems, runway length, surface conditions, density altitude, wake turbulence, environmental conditions, obstructions
Conduct OEI Climb to En Route Altitude	Can explain the OEI climb to en route altitude OEM procedure to include an understanding of the difference between climbing at V_{SE} vs. a greater speed per the OEM procedure.
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain flight characteristics and controllability associated with maneuvering to a landing with inoperative powerplant(s).
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain missed approach considerations with a powerplant failure.
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can explain how to determine a suitable airport.

Conduct Instrument Takeoff	Can describe procedures during takeoff to address the transition from visual flight to instrument flight for both the pilot flying (PF) and pilot monitoring (PM), to include the use and limitations of any flight guidance or visual systems in use. Pilots should be aware of the operator's policy for responding to loss of suitable visual reference during takeoff, in the low and high-speed regimes, both before and after V1 (refer to AC 120-62 for additional information and recommendations for training).
Conduct Instrument Takeoff	Can explain operational factors that could affect an instrument takeoff (airports available in the event of an emergency after takeoff).
Conduct Lower than Standard Minimum Takeoff	Can discuss all relevant OpSpec requirements for Lower than Standard Minimum Takeoff.
Conduct integrated use of EICAS Messages, switch positions and synoptic pages	Can determine aircraft system status
Conduct Landing From a Precision Approach	Can recognize significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH.
Conduct Landing From a Precision Approach	Can recognize ground or navigation system faults, failures or abnormalities at any point during the approach and landing.
Conduct Landing From a Precision Approach	Can explain elements related to the pilot's responsibilities, and the environmental, operational, and meteorological factors that affect landing from a precision approach.
Conduct Landing From a Precision Approach	Can explain approach lighting systems and runway and taxiway signs, markings and lighting.

Conduct Missed Approach - OEI	Can explain that when executing a one engine inoperative missed approach prior to the MAP and not cleared by an air traffic control (ATC) climb-out instruction, pilots should fly the published missed approach procedure by proceeding on published track to the MAP before accomplishing a turn, complying with published altitude restrictions between the FAF and the MAP, and continuing on or climbing to the altitude specified in the missed approach procedure.
Conduct Missed Approach - OEI	Can explain elements related to a one engine inoperative missed approach procedures to include reference to standby or backup instruments.
Conduct Missed Approach - OEI	Can explain limitations associated with standard instrument approaches, including while using an FMS or autopilot, if equipped.
Conduct Nonprecision Approach	Can explain that unstabilized approaches are a key contributor to CFIT events, and explain that present NPAs are designed with and without stepdown fixes in the final approach
Conduct Nonprecision Approach	Can explain why stepdowns flown without a constant descent will require multiple thrust, pitch, and altitude adjustments inside the final approach fix (FAF), and can explain that these adjustments increase pilot workload and potential errors during a critical phase of flight.
Conduct Nonprecision Approach	Can explain that the practice commonly referred to as “dive and drive,” can result in extended level flight as low as 250 feet above the ground in instrument meteorological conditions (IMC) and shallow or steep final approaches.
Conduct Nonprecision Approach	Can explain that a stabilized approach is a key feature to a safe approach and landing. Can explain that operators are encouraged by the FAA and the International Civil Aviation Organization (ICAO) to use the stabilized approach concept to help eliminate CFIT.

Conduct Nonprecision Approach	Can explain that the stabilized approach concept is characterized by maintaining a stable approach speed, descent rate, vertical flightpath, and configuration to the landing touchdown point
Conduct Nonprecision Approach	Can explain that precision IAPs and approach procedures with vertical guidance (APV) have a continuous descent approach profile in their design.
Conduct Nonprecision Approach	Can explain that NPAs were not originally designed with this vertical path, but may easily be flown using the CDFA (continuous descent final approach) technique.
Conduct Nonprecision Approach	Can explain why Flying NPAs with a continuous descent profile will provide a safety advantage over flying approaches using the "dive and drive" technique.
Conduct Nonprecision Approach	Can explain that CDFA is a technique for flying the final approach segment of an NPA as a continuous descent. The technique is consistent with stabilized approach procedures and has no level-off.
Conduct Nonprecision Approach	Can explain the six advantages of CDFA: Increased safety by employing the concepts of stabilized approach criteria and procedure standardization; Improved pilot situational awareness (SA) and reduced pilot workload; Improved fuel efficiency by minimizing the low-altitude level flight time; Reduced noise level by minimizing the level flight time at high thrust settings; Procedural similarities to APV and precision approach operations; Reduced probability of infringement on required obstacle clearance during the final approach segment.
Conduct Nonprecision Approach	Can explain that CDFA requires no specific aircraft equipment other than that specified by the title of the NPA procedure and that Pilots can safely fly suitable NPAs with CDFA using basic piloting techniques, aircraft flight management systems (FMS) and RNAV

	systems, or by manually computing rate of descent.
Conduct Nonprecision Approach	Can calculate a rate of descent for VDA (see example in this paragraph)
Conduct Nonprecision Approach	Can explain that some approach characteristics (e.g., circling-only minima) and environmental factors (e.g., icing) could make the use of CDFA inadvisable.
Conduct Nonprecision Approach	Can explain procedures and limitations associated with a nonprecision approach, including the differences between Localizer Performance (LP) and Lateral Navigation (LNAV) approach guidance
Conduct Nonprecision Approach	Can explain navigation system displays and annunciations, modes of operation, and RNP lateral accuracy values associated with an RNAV (GPS) approach.
Conduct Nonprecision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).
Conduct Nonprecision Approach	Can explain criteria for a stabilized approach, to include energy management concepts.
Conduct Precision Approach	Can describe normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures
Conduct Precision Approach	Can describe procedures to address the transition from electronic monitoring displays to external visual references for

	both PF and PM for systems that include such displays.
Conduct Precision Approach	Can recognize the limits of acceptable aircraft position and flightpath tracking during approach, flare and rollout. This should be addressed using appropriate displays or annunciations for either automatic or manual landing systems.
Conduct Precision Approach	Can identify nearby critical terrain or obstruction environment;
Conduct Precision Approach	Can explain procedures and limitations associated with a precision approach, including determining required descent rates and adjusting minimums in the case of inoperative equipment.
Conduct Precision Approach	Can explain navigation system displays, annunciations, and modes of operation.
Conduct Precision Approach	Can explain ground-based and satellite-based navigation (orientation, course determination, equipment, tests and regulations, interference, appropriate use of navigation data, signal integrity).
Conduct Precision Approach	Can explain stabilized approach criteria, to include energy management concepts.
Conduct Rejected Takeoff	Can describe safety considerations following a rejected takeoff
Conduct Rejected Takeoff	Can explain the procedure for accomplishing a rejected takeoff
Conduct Rejected Takeoff	Can explain accelerate/stop distance
Conduct Rejected Takeoff	Can describe conditions and situations that could warrant a rejected takeoff (e.g., takeoff warning systems, powerplant failure, other systems warning/failure)
Conduct Rejected Takeoff	Can define relevant V-speeds for a rejected takeoff
Conduct Taxi	Can explain the information available on an airport diagram, chart supplement and NOTAMS
Conduct Taxi	Can interpret taxi instructions including published taxi routes
Conduct Taxi	Can identify airport and runway markings, signs, and lights

Conduct Taxi	Can describe proper procedures for entering or crossing runways
Conduct Taxi	Can explain procedures for taxi on one engine
Conduct Taxi	Can explain the hazards of low visibility taxi operations
Conduct Taxi	Can describe appropriate aircraft lighting for day and night operations
Conduct Taxi	Can describe appropriate flight deck activities prior to taxi, including route planning, identifying the location of Hot Spots, and coordinating with crew
Conduct Taxi	Can identify The runway and taxiway characteristics concerning width, safety areas, obstacle free zones, markings, hold lines, signs, holding spots, runway slope, suitability of threshold crossing height (TCH), critical area protection, taxiway position markings, runway distance remaining markings, runway distance remaining signs, and LVO/SMGCS should be addressed.
Conduct Taxi	Can explain the definition of a runway incursion: Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
Conduct Taxi	Can explain why thorough planning for taxi operations is essential for a safe operation
Conduct Taxi	Can conduct briefing of the expected taxi route to include any hold short lines and runways to cross, hot spots, and any other potential conflicts. (Once taxi instructions are received, the pretaxi route should be reviewed and monitored. It is essential that any changes to the taxi route be understood by all crewmembers)

Conduct Taxi	Can identify critical locations on the taxi route, where verbal coordination between the PIC and the SIC is important to avoid a runway incursion. (e.g., hot spots/complex intersections, crossing intervening runways, entering and lining up on the runway for takeoff, and approaching and lining up on the runway for landing)
Conduct Taxi	Can conduct briefing of requirements and special considerations during low visibility operations such as: the low visibility taxi chart, if published for the airport
Conduct Taxi	Can maintain knowledge of the aircraft's precise position throughout the taxi operation and mentally calculate the next location on the route that will require increased attention (e.g., a turn onto another taxiway, an intersecting runway, or hot spots)
Conduct Taxi	Can interpret and use all visual aids, and signage and lighting on the airport surface
Conduct Taxi	Can write down complex taxi instructions or copy taxi instructions into the scratch pad of the CDU
Conduct Taxi	Can explain that before entering a runway for takeoff, the flightcrew should verbally coordinate to ensure correct flap setting, identification of the runway, compass heading, FMC entry, and receipt of the proper ATC clearance to use that runway
Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).

Understand Crew and Passenger Emergency Equipment - emergency exits	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Crew and Passenger Emergency Equipment - emergency exits	Can describe the operation of the airplane systems and components using correct terminology
Understand Crew and Passenger Emergency Equipment - emergency exits	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Crew and Passenger Emergency Equipment - emergency exits	Can explain immediate action items or memory items, if appropriate
Understand Crew and Passenger Emergency Equipment - emergency exits	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Crew and Passenger Emergency Equipment - emergency exits	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Crew and Passenger Emergency Equipment - survival gear	Can explain the location, purpose and operation of emergency equipment in the aircraft
Understand Crew and Passenger Equipment - oxygen system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Crew and Passenger Equipment - oxygen system	Can describe the operation of the airplane systems and components using correct terminology
Understand Crew and Passenger Equipment - oxygen system	Can explain system or component limitations
Understand Crew and Passenger Equipment - oxygen system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Crew and Passenger Equipment - oxygen system	Can explain immediate action items or memory items, if appropriate
Understand Crew and Passenger Equipment - oxygen system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Crew and Passenger Equipment - oxygen system	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Crew and Passenger Equipment - oxygen system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Crew and Passenger Equipment - passenger oxygen system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Crew and Passenger Equipment - passenger oxygen system	Can describe the operation of the airplane systems and components using correct terminology
Understand Crew and Passenger Equipment - passenger oxygen system	Can explain system or component limitations
Understand Crew and Passenger Equipment - passenger oxygen system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Crew and Passenger Equipment - passenger oxygen system	Can explain immediate action items or memory items, if appropriate
Understand Crew and Passenger Equipment - passenger oxygen system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Crew and Passenger Equipment - passenger oxygen system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Crew and Passenger Equipment - passenger oxygen system - Inadvertent Oxygen Mask Activation	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Crew and Passenger Equipment - passenger oxygen system - Overweight Landing procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can describe the operation of the airplane systems and components using correct terminology
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain system or component limitations

Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain immediate action items or memory items, if appropriate
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain the airspeeds used during specific phases of flight
Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Understand determining performance with an inoperative powerplant for all phases of flight per AFM - Engine Failure Considerations procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand evacuation procedures and crew duties - Cabin Window Cracked procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand evacuation procedures and crew duties - Ditching procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand evacuation procedures and crew duties - External Baggage Door Not Secure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand evacuation procedures and crew duties - Main Entrance Door Not Secure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand evacuation procedures and crew duties - Planned Airplane Evacuation procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can describe the operation of the airplane systems and components using correct terminology
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain system or component limitations
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain immediate action items or memory items, if appropriate
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can describe the operation of the airplane systems and components using correct terminology
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain system or component limitations
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain immediate action items or memory items, if appropriate
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices) - Aft Equipment Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices) - Aft Floor Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can describe the operation of the airplane systems and components using correct terminology

Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain system or component limitations
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain immediate action items or memory items, if appropriate
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental - Airplane Interior Fire / Smoke / Fumes procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - lavatory	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fire & smoke detection, protection, and suppression - lavatory	Can describe the operation of the airplane systems and components using correct terminology
Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain system or component limitations
Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain immediate action items or memory items, if appropriate
Understand Fire & smoke detection, protection, and suppression - lavatory	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fire & smoke detection, protection, and suppression - lavatory	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Fire & smoke detection, protection, and suppression - lavatory	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Fire & smoke detection, protection, and suppression - powerplant	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Fire & smoke detection, protection, and suppression - powerplant	Can describe the operation of the airplane systems and components using correct terminology
Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain system or component limitations
Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain immediate action items or memory items, if appropriate
Understand Fire & smoke detection, protection, and suppression - powerplant	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Fire & smoke detection, protection, and suppression - powerplant	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Fire & smoke detection, protection, and suppression - powerplant	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand flight operations in icing conditions	Can explain that "severe icing" is when the rate of ice accumulation is such that ice protection systems fail to remove the accumulation of ice and accumulation occurs in areas not normally prone to icing, such as aft of protected surfaces and other areas identified by the manufacturer
Understand ground operations in icing conditions	Can explain that regulations prohibit takeoff when snow, ice, or frost is adhering to wings, propellers, or control surfaces of an aircraft.

Understand ground operations in icing conditions	Can explain that the degradation in aircraft performance and changes in flight characteristics when frozen contaminants are present are wide ranging, unpredictable, and highly dependent upon individual aircraft design
Understand ground operations in icing conditions	Can explain that the PIC has the ultimate responsibility to determine if the aircraft is clean and that the aircraft is in a condition for safe flight.
Understand ground operations in icing conditions	Can explain the general adverse effects of ice, snow and frost on aircraft performance and flight characteristics: decreased thrust, decreased lift, increased stall speed, trim changes, and altered stall characteristics and handling qualities
Understand ground operations in icing conditions	Can explain that in order to achieve compliance with the clean aircraft concept, it is imperative that takeoff not be attempted in any aircraft unless the pilot-in-command (PIC) is certain that critical components of the aircraft are free of frozen contaminants.
Understand ground operations in icing conditions	Can explain that for aircraft type specific procedures, pilots should refer to the aircraft flight manuals or other manufacturer documents developed for that particular type aircraft
Understand ground operations in icing conditions	Can explain that icing conditions (during flight or ground operations) can occur, and ice protection systems or procedures should be activated when OAT is below 50 degrees F (10 degrees C) and visible moisture in any form is present or when there is standing water, ice, or snow on the runway and/or taxiways.

Understand ground operations in icing conditions	Can explain that residual ice or slush accumulated on airframe components during landing and taxi operations on contaminated runways, taxiways and ramps, can remain in place if low temperatures and other weather conditions exist unless identified and removed. Contaminants of this type are commonly found in wheel wells, on landing gear components, trailing edge flaps, undersurfaces of wings and horizontal stabilizers
Understand ground operations in icing conditions	Can explain that the deicing process is intended to restore the aircraft to a clean configuration so that neither degradation of aerodynamic characteristics nor mechanical interference from contaminants will occur
Understand ground operations in icing conditions	Can explain that it is essential that the PIC have a thorough understanding of the deicing and anti-icing process and the approved procedures necessary to ensure that the aircraft is clean for takeoff.
Understand ground operations in icing conditions	Can explain that anti-icing should be performed as near to the takeoff time as possible to minimize the risk of exceeding the useful life or time of effectiveness of the anti-icing fluid
Understand Ice Protection - anti-ice & de-ice - Ice Shedding Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Ice Protection - anti-ice & de-ice.	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Ice Protection - anti-ice & de-ice.	Can describe the operation of the airplane systems and components using correct terminology
Understand Ice Protection - anti-ice & de-ice.	Can explain system or component limitations
Understand Ice Protection - anti-ice & de-ice.	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Ice Protection - anti-ice & de-ice.	Can explain immediate action items or memory items, if appropriate

Understand Ice Protection - anti-ice & de-ice.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Ice Protection - anti-ice & de-ice.	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Ice Protection - anti-ice & de-ice.	Can explain the function and limitations of automatic mode of wing and cowl anti-ice systems
Understand Ice Protection - pitot-static system protection	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Ice Protection - pitot-static system protection	Can describe the operation of the airplane systems and components using correct terminology
Understand Ice Protection - pitot-static system protection	Can explain system or component limitations
Understand Ice Protection - pitot-static system protection	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Ice Protection - pitot-static system protection	Can explain immediate action items or memory items, if appropriate
Understand Ice Protection - pitot-static system protection	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Ice Protection - pitot-static system protection	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Ice Protection airfoil surfaces	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Ice Protection airfoil surfaces	Can describe the operation of the airplane systems and components using correct terminology
Understand Ice Protection airfoil surfaces	Can explain system or component limitations
Understand Ice Protection airfoil surfaces	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Understand Ice Protection airfoil surfaces	Can explain immediate action items or memory items, if appropriate
Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Ice Protection airfoil surfaces	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Ice Protection windshield	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Ice Protection windshield	Can describe the operation of the airplane systems and components using correct terminology
Understand Ice Protection windshield	Can explain system or component limitations
Understand Ice Protection windshield	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Ice Protection windshield	Can explain immediate action items or memory items, if appropriate
Understand Ice Protection windshield	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Ice Protection windshield	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Ice Protection windshield - Windshield Cracked procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Ice Protection windshield - Windshield Heat Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Rejected Takeoff
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Engine failure/fire after takeoff decision speed (V1)
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Emergency descent.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Rapid decompression.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Engine exceedance.
Understand OEM checklist philosophy	Can state the initial critical pilot responses promptly and without reference to a checklist: Overspeed
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can describe the operation of the airplane systems and components using correct terminology
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain system or component limitations
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain immediate action items or memory items, if appropriate
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Pitot Static System - Operation and power sources for other flight instruments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Pitot Static System - Operation and power sources for other flight instruments	Can describe the operation of the airplane systems and components using correct terminology
Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain system or component limitations
Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain immediate action items or memory items, if appropriate
Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Pitot Static System - Operation and power sources for other flight instruments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can describe the operation of the airplane systems and components using correct terminology
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain system or component limitations
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain immediate action items or memory items, if appropriate
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can describe the operation of the airplane systems and components using correct terminology
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain system or component limitations
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain immediate action items or memory items, if appropriate
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Pneumatic and environmental system - heating, cooling, ventilation	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Pneumatic and environmental system - pressurization	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Understand Pneumatic and environmental system - pressurization	Can describe the operation of the airplane systems and components using correct terminology
Understand Pneumatic and environmental system - pressurization	Can explain system or component limitations
Understand Pneumatic and environmental system - pressurization	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Pneumatic and environmental system - pressurization	Can explain immediate action items or memory items, if appropriate
Understand Pneumatic and environmental system - pressurization	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pneumatic and environmental system - pressurization	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Pneumatic and environmental system - pressurization - Unpressurized Flight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Understand Pneumatic and environmental system - supply for ice protection systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Understand Pneumatic and environmental system - supply for ice protection systems	Can describe the operation of the airplane systems and components using correct terminology
Understand Pneumatic and environmental system - supply for ice protection systems	Can explain system or component limitations
Understand Pneumatic and environmental system - supply for ice protection systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Understand Pneumatic and environmental system - supply for ice protection systems	Can explain immediate action items or memory items, if appropriate
Understand Pneumatic and environmental system - supply for ice protection systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Understand Pneumatic and environmental system - supply for ice protection systems	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Understand Pneumatic and environmental system - supply for ice protection systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).	Can explain and demonstrate the use of charts, tables, and data to determine performance
Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).	Can explain and demonstrate the use of charts, tables, and data to determine performance

SIM 2 Tasks and Expectations

Tasks	Motor Skill Learning Objectives	Attitude Learning Objectives	Task Experience Rating
Conduct Automatic Emergency Descent Mode (EDM)procedure	Can execute procedure with smoothness and accuracy		High
Conduct Automatic Emergency Descent Mode (EDM)procedure	Can operate the airplane within its limitations		High
Conduct Automatic Emergency Descent Mode (EDM)procedure	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can apply aeronautical knowledge to execution of the task	High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can apply crew coordination	High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can conduct effective communication with the other crew members	High

Conduct Automatic Emergency Descent Mode (EDM)procedure		Can manage crew cooperation	High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct Automatic Emergency Descent Mode (EDM)procedure		Can demonstrate good judgement and airmanship	High
Conduct EFVS Operations		When using the EFVS, can demonstrate familiarization with the interpretation of the display to ensure proper identification of the runway and positioning of the aircraft relative to	High

		continuation of the approach to landing. Pilots should understand the limitations of these systems, operational credits available, and authorization required for use. For more information on EFVS, refer to AC 90-106.	
Conduct Emergency Procedure - Airframe icing	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Airframe icing		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Airframe icing		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High
Conduct Emergency Procedure - Airframe icing		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind,	High

		terrain, and obstructions in an emergency.	
Conduct Emergency Procedure - Airframe icing		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can respond appropriately to engine failure prior to or during an approach.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can recognize and correctly identify powerplant failure, execute memory items, and maintain positive airplane control.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can coordinate with crew, if applicable, and complete the appropriate emergency procedures and checklist(s) for simulated propeller feathering or simulated powerplant shutdown.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain the operating powerplant(s) within acceptable operating limits.		High
Conduct Emergency Procedure - Approach and	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High

Landing with a Powerplant Failure			
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can perform establishing the recommended approach and landing configuration and airspeed, ±5 knots, and adjust pitch attitude and power as required to maintain a stabilized approach.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain directional control and appropriate crosswind correction throughout the approach and landing.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can perform smooth, timely, and correct control application before, during, and after touchdown.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can maintain positive aircraft control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure	Can coordinate with crew and execute after landing checklists(s).		High

Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure inflight or during an approach.	High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing improper airplane configuration.	High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing distractions,	High

		loss of situational awareness, or improper task management.	
Conduct Emergency Procedure - Approach and Landing with a Powerplant Failure		Can identify, assess, and manage risks, encompassing performing a go-around/rejected landing with a powerplant failure.	High
Conduct Emergency Procedure - Emergency Decent	Can coordinate with crew and execute the appropriate checklist(s) in a timely manner		High
Conduct Emergency Procedure - Decompression	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Decompression		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Decompression		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High
Conduct Emergency Procedure - Decompression		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind,	High

		terrain, and obstructions in an emergency.	
Conduct Emergency Procedure - Decompression		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Emergency Decent	Can coordinate with crew and execute the appropriate checklist(s) in a timely manner		High
Conduct Emergency Procedure - Emergency Decent	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Emergency Decent		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Emergency Decent		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High
Conduct Emergency Procedure - Emergency Decent		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and	High

		obstructions in an emergency.	
Conduct Emergency Procedure - Emergency Decent		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Emergency evacuation	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Emergency evacuation		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Emergency evacuation		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High
Conduct Emergency Procedure - Emergency evacuation		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	High

Conduct Emergency Procedure - Emergency evacuation		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can coordinate with crew and execute the appropriate checklist(s) in a timely manner		High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High
Conduct Emergency Procedure - Flight by reference to standby flight		Can identify, assess, and manage risks, encompassing	High

instruments, backup instrumentation, or partial panel		failure to consider altitude, wind, terrain, and obstructions in an emergency.	
Conduct Emergency Procedure - Flight by reference to standby flight instruments, backup instrumentation, or partial panel		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Inflight fire and smoke	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing multiple failures or system abnormalities.	High
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and	High

		obstructions in an emergency.	
Conduct Emergency Procedure - Inflight fire and smoke		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can execute continued takeoff following failures including engine failure after V1, and any critical failures for the aircraft type that could lead to lateral asymmetry during the takeoff;		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can execute continued takeoff if the powerplant failure occurs at a point where the airplane can continue to a specified airspeed and altitude at the end of the runway commensurate with the airplane's performance capabilities and operating limitations		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can maintain the desired airspeed, ±5 knots after establishing a climb, and use flight controls in the proper combination as recommended by the manufacturer, to maintain best performance and trim		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		High

Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can maintain the appropriate heading, ±5°, when powerplant failure occurs		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can coordinate with crew and execute the appropriate checklist(s) following the powerplant failure.		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure during takeoff considering operational factors such as takeoff warning inhibit systems, runway/takeoff path length, surface conditions, environment, obstructions, and LAHSO operations.	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to brief the plan for a	High

		powerplant failure during takeoff, in a crew environment.	
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to correctly identify the inoperative engine (AMEL, AMES).	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing inability to climb or maintain altitude with an inoperative powerplant (AMEL, AMES).	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and	High

		obstructions in an emergency.	
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Emergency Procedure - Powerplant Failure During Takeoff at V_1		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can execute continued takeoff following failures including engine failure after V1, and any critical failures for the aircraft type that could lead to lateral asymmetry during the takeoff;		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can execute continued takeoff if the powerplant failure occurs at a point where the airplane can continue to a specified airspeed and altitude at the end of the runway commensurate with the airplane's performance capabilities and operating limitations		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can maintain the desired airspeed, ±5 knots after establishing a climb, and use flight controls in the proper combination as recommended by the manufacturer, to		High

	maintain best performance and trim		
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can maintain the appropriate heading, ±5°, when powerplant failure occurs		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can coordinate with crew and execute the appropriate checklist(s) following the powerplant failure.		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment	Can perform communication with ATC and the evaluator, as appropriate for the situation.		High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure during takeoff considering operational factors such as takeoff warning inhibit systems, runway/takeoff path length, surface conditions,	High

		environment, obstructions, and LAHSO operations.	
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to brief the plan for a powerplant failure during takeoff, in a crew environment.	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to follow proper procedures or checklists in an emergency.	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to correctly identify the inoperative engine (AMEL, AMES).	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing inability to climb or maintain altitude with	High

		an inoperative powerplant (AMEL, AMES).	
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing failure to consider altitude, wind, terrain, and obstructions in an emergency.	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Emergency Procedure - Powerplant Failure During Second Segment		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct OEI Climb to En Route Altitude	Can conduct an OEI climb enroute at either V_{se} or greater, depending on conditions.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can recognize and correctly identify powerplant failure, execute memory items, and maintain positive airplane control.		High

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can coordinate with crew, if applicable, and complete the appropriate emergency procedures and checklist(s) for simulated propeller feathering or simulated powerplant shutdown.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can use flight controls in the proper combination as recommended by the manufacturer to maintain best performance and trim as required		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain the operating powerplant(s) within acceptable operating limits.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can perform radio calls as appropriate		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can assess and proceed toward the nearest suitable airport.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can coordinate with crew and execute the approach and landing checklists(s).		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		High

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain a stabilized approach, adjusting pitch and power as required, allowing no more than ¼-scale deflection of either the vertical or lateral guidance indications.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain a stabilized final approach from the FAF to the DA/DH allowing no more than ¼- scale deflection of either the vertical or lateral guidance indications and maintain the desired airspeed ±5 knots.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can maintain directional control and appropriate crosswind correction throughout the approach and landing or missed approach.		High

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can immediately execute the missed approach procedure if the required visual references for the runway are not distinctly visible and identifiable upon reaching the DA/DH,		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can execute a transition to a normal landing approach when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering upon reaching the DA/DH		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)	Can perform smooth, timely, and correct control application before, during, and after touchdown or during the missed approach.		High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing failure to plan for a powerplant failure inflight or during an approach.	High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels,	High

		persons, and wildlife.	
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing improper airplane configuration.	High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing distractions, loss of situational awareness, or improper task management.	High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing landing with a powerplant failure.	High
Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing missed approach with a powerplant failure.	High

Conduct Emergency Procedure - Precision Approach with Powerplant Failure (manual control)		Can identify, assess, and manage risks, encompassing maneuvering in IMC with a powerplant failure.	High
Conduct Instrument Takeoff	Can perform applicable procedures during takeoff to address the transition from visual flight to instrument flight for both the pilot flying (PF) and pilot monitoring (PM), to include the use and limitations of any flight guidance or visual systems in use.		High
Conduct Instrument Takeoff		Can demonstrate familiarization with operator's policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as directional control or stopping performance is concerned, and flight	High

		crews should be familiar with appropriate constraints related to braking reports and the obscuration of appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway contaminants and condition reporting.	
Conduct Instrument Takeoff	Can execute normal takeoff at lowest applicable minima;		High
Conduct Instrument Takeoff	Can perform takeoff with failure of the flight guidance device or ground-based guidance system, at a critical point of the takeoff, unless these systems have failure characteristics that are extremely improbable.		High
Conduct Instrument Takeoff	Can coordinate with crew and execute the appropriate checklist(s) prior to takeoff in a timely manner		High
Conduct Instrument Takeoff	Can execute setting of the applicable avionics and flight instruments prior to initiating the takeoff		High
Conduct Instrument Takeoff	Can perform radio calls as appropriate		High
Conduct Instrument Takeoff	Can verify assigned/correct runway		High
Conduct Instrument Takeoff	Can perform clearing the arrival area and execute taxiing into takeoff position and align		High

	the airplane on the runway centerline		
Conduct Instrument Takeoff	Can maintain centerline and proper flight control inputs during the takeoff roll		High
Conduct Instrument Takeoff	can confirm takeoff power and proper engine and flight instrument indications prior to rotation making callouts, as appropriate, for the airplane or per the operator’s procedures		High
Conduct Instrument Takeoff	Can rotates and lift off at the recommended airspeed, establish the desired pitch attitude, and accelerate to the desired airspeed/ V-speed.		High
Conduct Instrument Takeoff	Can execute a smooth transition from visual meteorological conditions (VMC) to actual or simulated instrument meteorological conditions (IMC).		High
Conduct Instrument Takeoff	Can maintain desired heading ±5° and desired airspeeds ±5 knots.		High
Conduct Instrument Takeoff	Can comply with ATC clearances and instructions issued by ATC, as appropriate		High
Conduct Instrument Takeoff	Can execute appropriate after-takeoff checklist(s) in a timely manner		High
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing selection of a runway based on aircraft performance and limitations, available distance, surface	High

		conditions, lighting, and wind	
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing wake turbulence	High
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for rejected takeoff	High
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for Engine failure in takeoff phase of flight with the ceiling or visibility below the minimums for an instrument approach at departure airport	High

Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for Engine failure in climb phase of flight with the ceiling or visibility below the minimums for an instrument approach at departure airport	High
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife	High
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include	High

		planning for low altitude maneuvering including stall, spin, or CFIT	
Conduct Instrument Takeoff		Can identify, assess, and manage risks, encompassing abnormal operations, to include planning for distractions, loss of situational awareness, or improper task management.	High
Conduct Lower than Standard Minimum Takeoff	Can conduct a Lower than Standard Minimum Takeoff in accordance with approved OpSpec C052.		High
Conduct Landing From a Precision Approach	Can perform proper reaction to significant airborne system failures experienced prior to and after reaching the final approach fix (FAF), MDA, DA/DH, or AH. Expected pilot response to failure after touchdown should be addressed as well.		High
Conduct Landing From a Precision Approach	Can recognize and execute appropriate actions in response to ground or navigation system faults, failures or abnormalities at any point during the approach and landing.		High
Conduct Landing From a Precision Approach		Can appreciate that pilots should be familiar with the need to report navigation	High

		system anomalies or discrepancies, failures of any lighting system (e.g., approach lights, runway lights, touchdown zone (TDZ) lights, centerline lights), or any other discrepancies that could be pertinent to operations.	
Conduct Landing From a Precision Approach		Can demonstrate familiarization with operator’s policies and procedures concerning constraints applicable to AWO takeoffs and landings on contaminated or cluttered runways. Limits should be noted for use of wet or icy runways as far as directional control or stopping performance is concerned,	High

		and flight crews should be familiar with appropriate constraints related to braking reports and the obscuration of appropriate lighting or markings. Refer to AC 91-79 for detailed information on runway contaminants and condition reporting.	
Conduct Landing From a Precision Approach	Can maintain the desired airspeed, ±5 knots, and vertical and lateral guidance within ¼-scale deflection of the indicators during the descent from DA/DH to a point where visual maneuvering is used to accomplish a normal landing.		High
Conduct Landing From a Precision Approach	Can comply with all ATC advisories, such as NOTAMs, windshear, wake turbulence, runway surface, braking conditions, and other operational considerations.		High
Conduct Landing From a Precision Approach	Can execute touch down at the appropriate speed and pitch attitude at the runway aiming point markings, -250/+500 feet, or where there are no runway markings 750 to 1,500 feet from the approach threshold of the runway		High

Conduct Landing From a Precision Approach	Can maintain positive airplane control throughout the landing using drag and braking devices, as appropriate, to come to a stop.		High
Conduct Landing From a Precision Approach	Can demonstrate SRM or CRM, as appropriate.		High
Conduct Landing From a Precision Approach	Can apply runway incursion avoidance procedures.		High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing selection of an approach procedure and runway based on pilot capability, aircraft limitations, available distance, surface conditions, and wind.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing wake turbulence.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for missed approach	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing	High

		planning for land and hold short operations (LAHSO)	
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for low altitude maneuvering including stall, spin, or CFIT.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for distractions, loss of situational awareness, or improper task management.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing	High

		planning for attempting to land from an unstable approach.	
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for flying below the glidepath.	High
Conduct Landing From a Precision Approach		Can identify, assess, and manage risks, encompassing planning for transitioning from instrument to visual references for landing.	High
Conduct Missed Approach - OEI	Can execute a one engine inoperative missed approach from the MDA, DA/DH, or AH.		High
Conduct Missed Approach - OEI	Can execute a one engine inoperative missed approach from a low altitude that could result in a touchdown during go-around (balked or rejected landing).		High
Conduct Missed Approach - OEI	Can apply the appropriate power setting for the flight condition and establish a pitch attitude necessary to obtain the desired performance during a one engine inoperative missed approach.		High

Conduct Missed Approach - OEI	Can perform retraction of the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and initiate a positive rate of climb at the appropriate airspeed/V- speed, ±5 knots during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI	Can coordinate with crew and execute the appropriate procedures and checklist(s) in a timely manner during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI	Can comply with the published or alternate missed approach procedure during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI	Can coordinate with ATC if unable to comply with a clearance, restriction, or climb gradient.		High
Conduct Missed Approach - OEI	Can maintain the heading, course, or bearing ±5°, and altitude(s) ±100 feet during the missed approach procedure during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI	Can use an MFD and other graphical navigation displays, if installed, to monitor position and track to help navigate the missed approach.		High
Conduct Missed Approach - OEI	Can demonstrate effective CRM during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI	Can execute re-engagement of the autopilot at appropriate times during the one engine inoperative missed approach procedure.		High

Conduct Missed Approach - OEI	Can obtain ATC clearance to attempt another approach, proceed to the alternate airport, holding fix, or other clearance limit, as appropriate, or as directed by the evaluator during a one engine inoperative missed approach.		High
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing failure to follow prescribed procedures during a one engine inoperative missed approach.	High
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing holding, diverting, or electing to fly the approach again during a one engine inoperative missed approach.	High
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed	High

		approach during a one engine inoperative missed approach.	
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing factors that might lead to executing a one engine inoperative missed approach procedure before the MAP or to a go-around below DA/MDA.	High
Conduct Missed Approach - OEI		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and auto flight systems during a one engine inoperative missed approach.	High
Conduct Nonprecision Approach		Can appreciate that there are environments in which using CDFA technique is	High

		not advisable or practical, for example airports that do not offer straight in non-precision approaches.	
Conduct Nonprecision Approach	Can perform the nonprecision instrument approaches selected by the instructor/evaluator		High
Conduct Nonprecision Approach	Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		High
Conduct Nonprecision Approach	Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		High
Conduct Nonprecision Approach	Can Comply with all clearances issued by ATC.		High
Conduct Nonprecision Approach	Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		High
Conduct Nonprecision Approach	Can coordinate with ATC if unable to comply with a clearance.		High
Conduct Nonprecision Approach	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		High
Conduct Nonprecision Approach	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High

Conduct Nonprecision Approach	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		High
Conduct Nonprecision Approach	Can maintain a stabilized descent to the appropriate altitude.		High
Conduct Nonprecision Approach	Can maintain no more than ¼ scale CDI deflection, airspeed ±5 knots of selected value, and altitude above MDA +50/-0 feet (to the VDP or MAP) during the final approach segment		High
Conduct Nonprecision Approach	Can execute the missed approach procedure if the required visual references are not distinctly visible and identifiable at the appropriate point or altitude for the approach profile, or execute a normal landing from a straight-in or circling approach.		High
Conduct Nonprecision Approach	Can use a Multi-Function Display (MFD) and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to follow the correct approach procedure (e.g.,	High

		descending too early, etc.).	
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Selecting an incorrect navigation frequency.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to manage automated navigation and auto flight systems.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Failure to ensure proper airplane configuration during an approach and missed approach.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing An unstable approach, including excessive descent rates.	High

Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Deteriorating weather conditions on approach.	High
Conduct Nonprecision Approach		Can identify, assess, and manage risks, encompassing Operating below the minimum descent altitude (MDA) or continuing a descent below decision altitude (DA) without proper visual references.	High
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can execute procedure with smoothness and accuracy		High
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can operate the airplane within its limitations		High
Conduct PFD malfunction procedure (AGM 1 or DU1)	Can maintain control of the airplane at all times in such a manner that the successful outcome of the procedure is never in doubt		High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can apply aeronautical knowledge to execution of the task	High

Conduct PFD malfunction procedure (AGM 1 or DU1)		Can apply crew coordination	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can conduct effective communicatio n with the other crew members	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can manage crew cooperation	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can maintain a general survey of the aircraft operation by appropriate supervision	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can determine priorities and make decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation	High
Conduct PFD malfunction procedure (AGM 1 or DU1)		Can demonstrate good judgement and airmanship	High

Conduct Precision Approach	Can perform appropriate normal and non-normal procedures including crew duties, monitoring assignments, transfer of control during normal operations, appropriate automatic or crew-initiated call-outs, proper use of standard or special IAPs, applicable minima for normal configurations or for alternate or failure configurations, and reversion to higher minima in the event of failures		High
Conduct Precision Approach	Can perform procedures to address the transition from electronic monitoring displays to external visual references for both PF and PM for systems that include such displays.		High
Conduct Precision Approach		Can appreciate constraints for head winds, tail winds, crosswinds, and the effect of vertical and horizontal wind shear on automatic systems, flight directors (F/D), or other system (e.g., HUD, SVGS, etc.) performance. For systems such as HUDs that have a limited field of view (FOV), or	High

		synthetic reference systems, pilots should be familiar with the display limitations of these systems and expected pilot actions in the event that the aircraft reaches or exceeds a display limit capability.	
Conduct Precision Approach	Can execute types of instrument procedures approved for the air carrier (standard and special, lowest straight-in, or circling minima, if applicable); according to the operator’s manuals, charts and checklists, on the aircraft type, model and series flown.		High
Conduct Precision Approach	Can use flight guidance and/or visual system(s) and their corresponding category(s) of minima for each authorized system;		High
Conduct Precision Approach	Can use NAVAID(s) and visual aids used (LVO/SMGCS lighting if applicable);		High
Conduct Precision Approach	Can apply Flightcrew procedures used (e.g., PF/PM duties, monitored approach, or call-outs);		High
Conduct Precision Approach		Can demonstrate familiarization with airport and runway characteristics	High

		typically experienced;	
Conduct Precision Approach	Can perform relevant normal, non-normal, and environmental conditions. Training and evaluation need only be conducted using relevant and representative procedures and conditions (e.g., a representative mix of day, night, dusk, variable/patchy conditions, representative temperatures, landing runway altitudes, precipitation conditions, turbulence, and icing conditions); and		High
Conduct Precision Approach	Can respond appropriately to aircraft and ground system failures.		High
Conduct Precision Approach	Can perform the precision instrument approaches selected by the instructor/evaluator.		High
Conduct Precision Approach	Can initiate two-way communications with ATC appropriate for the phase of flight or approach segment, and use proper communication phraseology.		High
Conduct Precision Approach	Can execute selection, tuning, identification, and confirmation the operational status of navigation equipment to be used for the approach.		High
Conduct Precision Approach	Can comply in a timely manner with all clearances, instructions, and procedures.		High
Conduct Precision Approach	Can recognize if any flight instrumentation is inaccurate or inoperative, and take appropriate action.		High
Conduct Precision Approach	Can coordinate with ATC if unable to comply with a clearance.		High

Conduct Precision Approach	Can maintain the appropriate airplane configuration and airspeed considering meteorological and operating conditions.		High
Conduct Precision Approach	Can maintain altitude ±100 feet, selected heading ±5°, airspeed ±10 knots, and perform tracking of radials, courses, and bearings, prior to beginning the final approach segment.		High
Conduct Precision Approach	Can assess NOTAMs, inoperative aircraft or navigation equipment, or inoperative visual aids associated with the landing environment and adjust the published MDA and visibility criteria for the aircraft approach category		High
Conduct Precision Approach	Can initiate and maintain a predetermined rate of descent which approximates that required for the aircraft to follow the vertical guidance, at the point where vertical guidance begins		High
Conduct Precision Approach	Can maintain a stabilized final approach from the Final Approach Fix (FAF) to DA/DH allowing no more than ¼-scale deflection of either the vertical or lateral guidance indications and maintain the desired airspeed ±5 knots		High
Conduct Precision Approach	Can immediately initiate the missed approach procedures if the required visual references for the runway are not distinctly visible and identifiable upon reaching the DA/DH.		High

Conduct Precision Approach	Can, upon reaching the DA/DH, perform a transition to a normal landing when the aircraft is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering		High
Conduct Precision Approach	Can use an MFD and other graphical navigation displays, if installed, to monitor position, track wind drift and other parameters to maintain desired flightpath.		High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to follow the correct approach procedure (e.g., descending below the glideslope, etc.).	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing selecting an incorrect navigation frequency.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to manage automated navigation and	High

		auto flight systems.	
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing failure to ensure proper airplane configuration during an approach and missed approach.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing an unstable approach, including excessive descent rates.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing deteriorating weather conditions on approach.	High
Conduct Precision Approach		Can identify, assess, and manage risks, encompassing continuing to descend below the Decision Altitude (DA)/Decision Height (DH) when the required visual	High

		references are not visible.	
Conduct Rejected Takeoff	Can execute Rejected takeoff from a point prior to V1 (including an engine failure);		High
Conduct Rejected Takeoff	Can perform rejected takeoff requiring transfer of control (if applicable) for low-visibility takeoff minima where a flight guidance and/or vision system is required		High
Conduct Rejected Takeoff	Can perform rejected takeoff with failure of the flight guidance device or ground-based guidance system, at a critical point of the takeoff, unless these systems have failure characteristics that are extremely improbable.		High
Conduct Rejected Takeoff	Can execute aborted takeoff if the powerplant failure occurs at a point during the takeoff where the abort procedure can be initiated and the airplane can be safely stopped on the remaining runway		High
Conduct Rejected Takeoff	Can execute prompt reduction of power and maintain positive aircraft control using drag and braking devices, as appropriate, to come to a stop		High
Conduct Rejected Takeoff	Can coordinate with crew, if applicable, and complete the appropriate procedures, checklist(s), and radio calls following a rejected takeoff in a timely manner		High
Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing a powerplant	High

		failure or other malfunction during takeoff.	
Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing failure to maintain directional control following a rejected takeoff	High
Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing rejecting takeoff with inadequate stopping distance	High
Conduct Rejected Takeoff		Can identify, assess, and manage risks, encompassing a high-speed abort distraction, loss of situational awareness, or improper task management	High

Conduct Taxi	Low visibility taxi and ground operations should be trained to the extent practical and beneficial. Such training should address operations at typical airports or alternately, at airports frequently experiencing low-visibility conditions, complex airports on the operator’s route system, airports with particular low visibility ground movement difficulties, or rarely used but significant contingency airports, as determined appropriate by the operator.		High
Conduct Taxi	perform either PF or PM duties, unless otherwise limited by the operator’s policies or aircraft characteristics (e.g., single HUD).		High
Conduct Taxi	Can record taxi instructions, respond to taxi clearances, and review taxi routes on the airport diagram.		High
Conduct Taxi	Can use an airport diagram or taxi chart during taxi		High
Conduct Taxi	Can comply with ATC clearances and instructions and observe all runway hold lines, ILS critical areas, beacons, and other airport/taxiway markings and lighting		High
Conduct Taxi	Can coordinate with crew, if applicable, and complete the appropriate checklist(s) prior to and during taxi		High
Conduct Taxi	Can maintain situational awareness during taxi		High
Conduct Taxi	Can maintain correct and positive airplane control, proper speed, appropriate use of wheel brakes and reverse thrust		High

Conduct Taxi	Can maintain separation between other aircraft, vehicles, and persons to avoid an incursion/incident/accident		High
Conduct Taxi	Can use aircraft exterior lighting for day and night operations		High
Conduct Taxi		Can identify, assess, and manage risks, encompassing inappropriate activities and distractions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing confirmation or expectation bias as related to taxi instructions	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing a taxi route or departure runway change	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing failure to complete checklist(s)	High
Conduct Taxi		Can identify, assess, and manage risks, encompassing low visibility taxi operations	High

Conduct Taxi		Can conduct a briefing on the timing and execution of aircraft checklists and company communications at the appropriate times and locations, ensuring the pilot who is not taxiing the aircraft can be available to participate in verbal coordination with the pilot who is taxiing the aircraft	High
Conduct Taxi		Can consider the anticipated duration of the taxi operation, the locations of hot spots/complex intersections and runway crossings, and the visibility along the taxi route when briefing tasks or accomplishing checklists	High
Conduct Taxi		Can manage pilot workload and heads-down time during taxi by	High

		conducting predeparture checklists, including setting the takeoff flap setting, when the aircraft is stopped or while taxiing straight ahead on a taxiway without complex intersections and hot spots	
Conduct Taxi		Can maintain a sterile cockpit during taxi operations	High
Conduct Taxi	Can use airport diagram to follow progress of the taxi operation		High
Conduct Taxi		Can manage the risk of expectation bias, and follow the clearance or instructions that are actually received, and not the ones they expected to receive.	High
Conduct Taxi		Can be alert to ATC instructions to hold short of an ILS critical area holding line.	High

Conduct Taxi		Can monitor the aircraft's progress on the airport diagram to ensure that the pilot taxiing the aircraft is following the instructions received from the ATC while maintaining outside vigilance	High
Conduct Taxi		Can determine whether or not to accept last-minute turnoff instructions from ATC, refusing such clearance unless the crew clearly understands the instructions and are certain that they can safely comply.	High
Conduct Taxi		Can respond to all hold short instructions, and verifies with other crew members or ATC to ensure agreement and understanding	High

Conduct Taxi	Can execute bringing the aircraft to a complete stop, or be in a phase of taxiing that has no risk of a runway incursion before continuing with operational duties and checklists		High
Conduct Taxi		Can comply with hold short or crossing clearance when approaching an entrance to a runway.	High
Conduct Taxi		Can explain or demonstrate proper actions if the crew becomes disoriented: never stop on a runway, and initiate communications with ATC to regain orientation.	High
Conduct Taxi		Can demonstrate vigilance when instructed to taxi and "Line Up and Wait". Turns Traffic Alert and Collision Avoidance System (TCAS)/traffic advisory systems (TAS) on in	High

		order obtain awareness of any aircraft that may be landing on your runway.	
Conduct Taxi		Can resolve all misunderstandings or disagreements regarding taxi clearance to the satisfaction of all flightcrew members before taxiing the aircraft.	High
Conduct Taxi	Can apply use of the airport diagram after receiving a clearance, and confirms and verbalizes the assigned runway and taxi route, including any instructions to hold short of, or cross, a runway. If there is any doubt, speaks up and resolve the uncertainty before taxi		High
Conduct Taxi		Can coordinate with other flightcrew member(s) if stopping and resuming the monitoring of the ATC frequency, for example when it becomes necessary for a flightcrew member to stop monitoring	High

		any ATC frequency to prepare the aircraft for takeoff or landing.	
Conduct Taxi		Can assess any upcoming hold short instructions or clearances that could be misinterpreted prior to stopping and after resuming monitoring of the taxi. An example may include: “I’m heads-down, right turn ahead at Alpha,” or “I’m back, any changes?”	High
Conduct Taxi		Can appreciate that time away from monitoring ATC should be avoided with complex taxi routing or crossing of runways. Any instructions or information received or transmitted during that flightcrew member’s absence from	High

		the ATC frequency should be reviewed and confirmed upon his or her return.	
Conduct Taxi		Can coordinate verbally at complex intersections to be sure that: the intersection is correctly identified and confirmed using the airport diagram and the heading indicator	High
Conduct Taxi		Can state “approaching (specific runway number) hold short line. Before crossing any hold short line, the flightcrew should visually scan to the left and to the right, including the full length of the runway and its approach paths, and coordinate	High

		verbally (e.g., “clear right/left” or that the scan area is not clear).	
Conduct Taxi		Can coordinate verbally and agree on the runway assigned by ATC, the upcoming assigned exit, and any restrictions, such as hold short points of an intersecting runway and the aircraft’s parking area after landing	High
Conduct Taxi	Can execute turning on the rotating beacon whenever an engine is running		High
Conduct Taxi	Can execute turning on navigation, position, anti-collision, and logo lights, if available, to signal intent to other pilots prior to commencing taxi		High
Conduct Taxi	Can execute turning on the taxi light when the aircraft is moving or intending to move on the ground, and turning it off when stopped or yielding or as a consideration to other pilots or ground personnel		High
Conduct Taxi	Can execute illuminating all lights when crossing a runway when appropriate		High

Conduct Taxi		Can consider any adverse effects to safety that illuminating the forward-facing lights will have on the vision of other pilots or ground personnel during runway crossings, and adjust operation accordingly	High
Conduct use of HUD	Conduct takeoff and departure using HUD to ATP ACS standards		High
Conduct use of HUD	Conduct approach and landing using HUD to ATP ACS standards		High
Conduct use of HUD	Conduct takeoff using FPA to meet a required climb gradient to ATP ACS standards		High
Conduct use of HUD	Can use caged, uncaged and clear modes in crosswind conditions		High
Conduct use of HUD	Can perform approach to a black hole airport using flight path angle (FPA)		High
Conduct use of HUD	Can relate glidepath angle to the symbolic runway.		High
Conduct use of HUD	Can use the flare symbol as a cue in the Honeywell HUD Model 2020 and as guidance in the HUD II.		High
Conduct use of HUD	Can perform approach into the top of an undercast during daylight and night conditions.		High
Conduct use of HUD	Can perform takeoff using the FPA to meet a required climb gradient.		High

Conduct use of PlaneView System, if applicable	Can perform use of the PlaneView system installed in the full flight training equipment		High
Understand Crew and Passenger Emergency Equipment - emergency exits		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Crew and Passenger Emergency Equipment - emergency exits		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Crew and Passenger Emergency Equipment - emergency exits		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Crew and Passenger Emergency Equipment - emergency exits		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Crew and Passenger Equipment - oxygen system		Can identify, assess, and manage risks encompassing failure to detect system	High

		malfunctions or failures.	
Understand Crew and Passenger Equipment - oxygen system		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Crew and Passenger Equipment - oxygen system		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Crew and Passenger Equipment - oxygen system		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Crew and Passenger Equipment - passenger oxygen system		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Crew and Passenger Equipment - passenger oxygen system		Can identify, assess, and manage risks encompassing failure to follow appropriate	High

		checklists or procedures	
Understand Crew and Passenger Equipment - passenger oxygen system		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Crew and Passenger Equipment - passenger oxygen system		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers		Can identify, assess, and manage risks encompassing improper management of a system failure	High

Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing possible differences between calculated performance and actual performance	High
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing airplane icing and its effect on	High

		performance and stall warning, and Runway excursions	
Understand determining performance with an inoperative powerplant for all phases of flight per AFM		Can identify, assess, and manage risks encompassing runway excursions	High
Understand evacuation procedures and crew duties		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments		Can identify, assess, and manage risks encompassing improper management	High

		of a system failure	
Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fire & smoke detection, protection, and suppression - lavatory		Can identify, assess, and manage risks encompassing failure to detect system	High

		malfunctions or failures.	
Understand Fire & smoke detection, protection, and suppression - lavatory		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Fire & smoke detection, protection, and suppression - lavatory		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fire & smoke detection, protection, and suppression - lavatory		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Fire & smoke detection, protection, and suppression - powerplant		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Fire & smoke detection, protection, and suppression - powerplant		Can identify, assess, and manage risks encompassing failure to follow appropriate	High

		checklists or procedures	
Understand Fire & smoke detection, protection, and suppression - powerplant		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Fire & smoke detection, protection, and suppression - powerplant		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Ice Protection - anti-ice & de-ice.		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Ice Protection - anti-ice & de-ice.		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Ice Protection - anti-ice & de-ice.		Can identify, assess, and manage risks encompassing improper management of a system failure	High

Understand Ice Protection - anti-ice & de-ice.		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Ice Protection - pitot-static system protection		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Ice Protection - pitot-static system protection		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Ice Protection - pitot-static system protection		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Ice Protection - pitot-static system protection		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High

Understand Ice Protection airfoil surfaces		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Ice Protection airfoil surfaces		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Ice Protection airfoil surfaces		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Ice Protection airfoil surfaces		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Ice Protection windshield		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Ice Protection windshield		Can identify, assess, and manage risks	High

		encompassing failure to follow appropriate checklists or procedures	
Understand Ice Protection windshield		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Ice Protection windshield		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Pitot Static System - associated instruments and the power source for those flight instruments		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Pitot Static System - associated instruments and the power source for those flight instruments		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Pitot Static System - associated instruments and the power source for		Can identify, assess, and manage risks encompassing improper	High

those flight instruments		management of a system failure	
Understand Pitot Static System - associated instruments and the power source for those flight instruments		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Pitot Static System - Operation and power sources for other flight instruments		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Pitot Static System - Operation and power sources for other flight instruments		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Pitot Static System - Operation and power sources for other flight instruments		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Pitot Static System - Operation and power sources for other flight instruments		Can identify, assess, and manage risks encompassing failure to monitor and manage	High

		automated systems.	
Understand Pneumatic and environmental system - controls, indicators, and regulating devices		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Pneumatic and environmental system - controls, indicators, and regulating devices		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Pneumatic and environmental system - controls, indicators, and regulating devices		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Pneumatic and environmental system - controls, indicators, and regulating devices		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Pneumatic and environmental system - heating, cooling, ventilation		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High

Understand Pneumatic and environmental system - heating, cooling, ventilation		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Pneumatic and environmental system - heating, cooling, ventilation		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Pneumatic and environmental system - heating, cooling, ventilation		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Pneumatic and environmental system - pressurization		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Pneumatic and environmental system - pressurization		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High

Understand Pneumatic and environmental system - pressurization		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Pneumatic and environmental system - pressurization		Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Pneumatic and environmental system - supply for ice protection systems		Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Pneumatic and environmental system - supply for ice protection systems		Can identify, assess, and manage risks encompassing failure to follow appropriate checklists or procedures	High
Understand Pneumatic and environmental system - supply for ice protection systems		Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Pneumatic and environmental		Can identify, assess, and manage risks	High

system - supply for ice protection systems		encompassing failure to monitor and manage automated systems.	
Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).		Can identify, assess, and manage risks encompassing Inaccurate use of performance charts, tables, and data	High
Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).		Can explain the adverse effects of exceeding an airplane limitation or the airplane operating envelope.	High
Conduct EFVS Operations	Per § 61.66(b)(2)(i) can integrate the following: it is necessary that the flight training curriculum includes preflight and in-flight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes, and associated systems, and adjustments for brightness and contrast under day and night conditions. It may be beneficial to perform these tasks in the curriculum using either the manufacturer's recommended procedures or procedures applicable to the operator.		High

Conduct EFVS Operations	Per § 61.66(b)(2)(ii) can integrate the following: it is necessary that the flight training curriculum includes proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings. It may be beneficial for the curriculum to allow pilots to become familiar with the use of installed equipment such as an EFVS in all phases of flight.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can use a sample of approach types for the EFVS operation being trained (e.g., precision and nonprecision, if applicable).		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) use a sample of crosswind conditions and offset angles that emphasize the challenges of operating with the limited FOV with an EFVS.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(iii) can conduct EFVS operations in visibilities less than IAP minimum visibilities. This may not be practical if training is conducted in an aircraft. If the training is accomplished in a full flight simulator (FFS), conduct the training with the enhanced visibilities representative of the EFVS sensor performance.		High

Conduct EFVS Operations	Per § 61.66(b)(2)(iv) can integrate the following: it is necessary that the flight training curriculum includes determining enhanced flight visibility. The curriculum can help pilots learn how to determine enhanced flight visibility using techniques and methods similar to the techniques and methods used for determining flight visibility when conducting an approach without an EFVS.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(v) can integrate the following: it is necessary that the flight training curriculum includes identifying required visual references appropriate to EFVS operations. The curriculum can help pilots learn how to identify required visual references using an EFVS with techniques and methods similar to the techniques and methods used for identifying the required visual references when conducting an approach without the use of an EFVS. The PM may use the PM display, if available, to assist the PF in this task.		High

Conduct EFVS Operations	Per § 61.66(b)(2)(vi) can integrate the following: it is necessary that the flight training curriculum includes transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment. The curriculum can help pilots learn how to acquire visual references with natural vison at 100 feet during an EFVS-100 operation. There are many acceptable techniques for identifying the visual references with natural vision while the pilot continues using the EFVS to provide the enhanced flight visibility required for the operation.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) use procedures applicable to the PF and PM, crew briefings, procedures, callouts, and coordination items for EFVS operations, including annunciation of published minimums during operation below the DA/DH or MDA.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct procedures at 100 feet during an EFVS-100 operation.		High
Conduct EFVS Operations	Per § 61.66(b)(2)(viii) can conduct EFVS failure procedures (procedures for an EFVS failure or a system degradation during an EFVS operation).		High
Conduct EFVS Operations	Can conduct preflight and inflight preparation of EFVS equipment for EFVS operations, including EFVS setup and use of display, controls, modes and		High

	associated systems, and adjustments for brightness and contrast under day and night conditions.		
Conduct EFVS Operations	Can use proper piloting techniques associated with using EFVS during taxi, takeoff, climb, cruise, descent, landing, and rollout, including missed approaches and balked landings.		High
Conduct EFVS Operations	Can use proper piloting techniques for the use of EFVS during instrument app roaches, to include operations below DA/DH or MDA as applicable to the EFVS operations to be conducted, under both day and night conditions.		High
Conduct EFVS Operations	Can determine enhanced flight visibility.		High
Conduct EFVS Operations	Can identify required visual references appropriate to EFVS operations.		High
Conduct EFVS Operations	Can adjust when transitioning from EFVS sensor imagery to natural vision acquisition of required visual references and the runway environment.		High
Conduct EFVS Operations	Can conduct normal, abnormal, emergency, and crew coordination procedures when using an EFVS.		High
Conduct Stall Prevention and Recovery	Can conduct an impending stall recovery with only idle thrust available. See Appendix 2, Demonstration 1 for details.		High
Conduct Stall Prevention and Recovery	Can conduct a clean configuration stall prevention (high altitude) scenario. See Appendix 3, Scenario 1 for details.		High

G-V Standardized Curriculum
Course 3 Learning Objectives

Table of Contents

Course 3 Overview			
Day 1 (As Required by 135.351(b)(2))	**Planned Hours**	**Ground**	**Systems Integration**
Quiz	Per §135.351(b)(2) as noted in the Standardized Curriculum Document	8.0	0.0
Aircraft General			
Aircraft Manuals			
Auxiliary Power Unit			
Avionics and Communications			
CRM			
Electrical System			
Fire and Smoke Detection, Protection and Suppression			
Flight Controls			
Flight Planning and Performance			
Flight Profiles and Maneuvers			
Fuel System			
Hydraulic System			
Ice Protection			
Landing Gear and Brakes			
Lighting			
MEL and CDL			
Oil System			
Oxygen			
Pitot-static System			
Pneumatic and Environmental Systems			
Powerplant			
Preflight			
Thrust Reverse			
Weight and Balance			
Windshear			
Ground School Completion Exam			

Simulator Session 1 (Initial Observation)	**Brief**	**Crew**	**Single**
Checking: Preflight Inspection	2.0	4.0	2.0
Checking: Start Procedures			
Checking: Taxiing/Runway Operations			
Checking: Pretakeoff Checks			
Checking: Normal Takeoff			
Checking: Area Departure			

Checking: Steep Turns			
Checking: Stall Prevention (Approaches to Stalls)			
Checking: Area Arrival			
Checking: Holding			
Checking: Normal ILS Approach			
Checking: Coupled Approach			
Checking: Nonprecision Approach			
Checking: Missed Approach from an ILS			
Checking: EFVS Approach			
Checking: Normal Landing			
Checking: Maneuver by Partial Panel			
Checking: Unusual Attitude Recovery			

Simulator Session 2 (Second Checking Event)	**Brief**	**Crew**	**Single**
Checking: Crosswind Takeoff	2.0	4.0	2.0
Checking: Instrument Takeoff			
Checking: Takeoff with Powerplant Failure			
Checking: Rejected Takeoff			
Checking: Powerplant Failure			
Checking: Engine-out ILS			
Checking: Second Nonprecision Approach			
Checking: Second Missed Approach			
Checking: Circling Approach			
Checking: Crosswind Landing			
Checking: Landing from an ILS			
Checking: Landing with an Engine Out			
Checking: Circling Approach to Landing			
Checking: Rejected Landing			
Checking: No-flap Approach to Landing			
Checking: EFVS Landing			
Checking: System Malfunction			

Simulator Session 3 (Scenario 1 or Train-to-Proficiency & Recheck)	**Brief**	**Crew**	**Single**
Scenario 1 to be developed by the training provider IAW TSWG annual guidance OR remaining checking events to be trained-to-proficiency.	2.0	4.0	2.0

Simulator Session 4 (Scenario 1 or 2)	**Brief**	**Crew**	**Single**
	2.0	4.0	2.0

Scenario 2 to be developed by the training provider IAW TSWG annual guidance.			

Course Description and Overview

This category of training is for a flightcrew member who has been trained and qualified under the standardized curriculum, who will continue to serve in the same duty position and aircraft type, and who must receive recurring training and/or checking ***within*** an appropriate eligibility period. Pilots that are not within the eligibility period for recurrent require a requalification curriculum.

The objective of this curriculum is to improve the overall quality of the pilot's training experience and allow the check airman to evaluate the crewmember's skills in a realistic operating environment. Each training event should adapt to the needs of the pilots.

Adaptive recurrent training includes planned eight hours of ground school to cover the items in 135.351(b)(2). In order to allow the instructor to plan the ground school time effectively in advance of the day of ground school, the training center will administer the 135.351(b)(1) quiz prior to ground school commencing. The instructor can then focus the eight hours of ground school on the items in which the students answer incorrectly and required by 135.351.

Simulator events consist of staged training and checking and must be constructed using scenarios to ensure that both pilots complete all required events. Scenarios will be developed in coordination with feedback from the certificate holder's training program manager to ensure the scenarios reflect the certificate holder's operating environment and individual special emphasis items. Scenarios should be scaled to the complexity of the aircraft and the operating environment. Each scenario will include any required training elements in the curriculum (i.e., special emphasis items added by the Training Standardization Working Group) and the opportunity for retraining or re-checking any events that were unsatisfactory. Any time not spent checking will focus on training for Abnormal and Emergency Procedures that may not be scheduled to be checked, such as: TCAS, EGPWS, Operations in Icing Conditions, Smoke Removal, Emergency Descent, etc.

Adaptive Recurrent training allows pilots to display competency throughout the event through a staged checking process. During the course of the staged check, the check airman will grade all required events as the flights progress each sim session. The staged check is administered against the airman certification standards and no training may occur during checking events. The crewmembers will conduct structured briefings at the beginning of each sim session and detailed debriefings at the end of each sim session to make sure each crewmember is fully aware of the events successfully completed.

During a staged check, the crewmember will receive credit for and must complete all proficiency and competency check requirements under 135.293(a)(2)(3) & (b) and 135.297, as applicable to the duty position. All necessary checks will be complete at the end of the multiple-day scenario and the result will be reported to the crewmember or certificate holder as satisfactory or unsatisfactory.

The first simulator training event will be "initial observation." Initial observation is a check during which a check pilot focuses on normal operations, but may include some abnormalities as time permits. All checking items will be graded on the granular four-point grading scale the first time they are performed. Initial observation performance scores will be combined with those of other participants to establish the effectiveness of the training program itself and identify areas for further improvement. All Items Conducted to ATP ACS standards will be recorded on the FAA Form 8410 as satisfactory. Any tasks that do not meet ATP ACS standard will not be recorded on the 8410 and must be retrained and rechecked. Instead, unsatisfactory events will be graded on the four-point scale, and the granular grading information will be aggregated, deidentified, and provided to the TSWG for the purpose of improving the curriculum. The following guidelines shall be used for determining whether the outcome of the staged check is satisfactory or unsatisfactory:

- If in the judgment of the check airman, the crewmember does not meet the standards for any event, the crewmember fails that event.
- Each event can be checked one additional time by the end of the scenario, after retraining occurs.
- Once the event is assessed as unsatisfactory by the check airman, the crewmember will not be checked on the event again until he or she has completed retraining at which time the event can be re-checked.
- A maximum of three events can be retrained/re-checked during the course of the scenario.
- As soon as the staged check becomes unsatisfactory, the crewmember will be transitioned from Adaptive Recurrent training and checking to traditional maneuver-based recurrent training. In accordance with § 135.301(b), the check will be recorded as unsatisfactory on the 8410, and the pilot will be held from line service until the maneuver-based recurrent training and checking is satisfactorily completed.
- The crewmember will have to complete a stand-alone 135 check at the end of the traditional maneuver-based recurrent training in order to successfully complete the recurrent training curriculum.

Enhanced Recurrent training allows pilots to display competency throughout the checking event. A clear determination of when the pilot is undergoing training or checking must be made prior to beginning any maneuver. Items which are performed to less than the required proficiency standard must be retrained and rechecked before completion of the training event. Instructors may use the final simulator session for rechecking any items that were previously performed to less than standard.
NOTE: The final sim session should be used for retraining and rechecking any items that were not yet performed to the ATP ACS. If the pilot performed no maneuvers or few maneuvers unsatisfactorily throughout the training event, extra time may remain during the final sim session. This time may be used to train special emphasis items requested by the pilot or operator.

Prerequisites and SC enrollment:

The pilots will complete all certificate holder training curriculum segments prior to enrollment in SC.
The pilot must have a minimum of 1 year and 100 hours of time in type for fixed wing or 50 hours of time in type for rotor wing.
The pilot must have familiarity with the crew resource management (CRM) concepts in 14 CFR 135.330.
The pilot must have a current 135.293(a)(1), and (3)-(8) for the certificate holder.
The PIC pilot is within 135.293 & 135.297 currency, or
The SIC pilot is within 135.293 currency.

The PIC Curriculum leads to a PIC 135.293 and PIC 135.297 Proficiency Check.
The SIC Curriculum leads to a IFR SIC 135.293 Competency Check.

Ground School Learning Objectives

Day 1 Ground School Learning Objectives

Course 3	Tasks	Knowledge & Cognitive Learning Objectives
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can describe the operation of the airplane systems and components using correct terminology
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can explain immediate action items or memory items, if appropriate
Aircraft General	Understand Crew and Passenger Emergency Equipment - emergency exits	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand Crew and Passenger Emergency Equipment - survival gear	Can explain the location, purpose and operation of emergency equipment in the aircraft
Aircraft General	Understand evacuation procedures and crew duties - Cabin Window Cracked procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand evacuation procedures and crew duties - Ditching procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Aircraft General	Understand evacuation procedures and crew duties - External Baggage Door Not Secure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand evacuation procedures and crew duties - Main Entrance Door Not Secure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand evacuation procedures and crew duties - Planned Airplane Evacuation procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Aircraft General	Understand Specific Flight Characteristics	Can describe Any aircraft characteristics relevant to all weather operations, such as flight deck visibility cutoff angles and the effect on flight deck visibility of proper eye height, seat position or instrument lighting intensities related to transition through areas of varying brightness levels. Pilots should be aware of the effects on flight visibility related to use of different flap settings, approach speeds, use of various landing or taxi lights, and proper procedures for use of windshield wipers and rain repellent. If windshield defog, anti-ice, or de-icing systems affect forward visibility, pilots should be aware of those effects and be familiar with proper settings for use of that equipment related to low-visibility landing.
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Aircraft Manuals	Understand Auxiliary Power Unit (APU)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that AFM guidelines supersede all other information
Aircraft Manuals	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - autopilot	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications -	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

	Electronic Flight Instrument Systems (EFIS)	
Aircraft Manuals	Understand Avionics and communications - emergency locator transmitter.	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Flight Management System (FMS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - ground-based navigation systems and components	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - indicating devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - Radar	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Avionics and communications - transponder	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Emergency Equipment - emergency exits	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Equipment - oxygen system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Equipment - passenger oxygen system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - circuit breakers and protection devices	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - controls	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Electrical System - generators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Electrical System - batteries	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Envelope protection—angle of attack warning and protection and speed protection	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and suppression - lavatory	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fire & smoke detection, protection, and	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

	suppression - powerplant	
Aircraft Manuals	Understand Flight Controls - elevator	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - flaps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - rudder	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - speed brakes	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - spoilers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - Ailerons	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Flight Controls - trim systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - additives	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - capacity and quantities	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - controls and indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - cross-feeding	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - drains	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - fuel grade	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Fuel system - fuel substitutions	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - fueling and defueling procedures	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - pumps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Fuel system - transferring	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - allowable types of fluid	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - capacity	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - pressure	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - pumps	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - regulators/accumulators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Hydraulic system - reservoirs	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Ice Protection - anti-ice & de-ice.	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Ice Protection - pitot-static system protection	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Ice Protection airfoil surfaces	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

Aircraft Manuals	Understand Ice Protection windshield	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - antiskid	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - brakes	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - extension/retraction system	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - indicators	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - nosewheel steering	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - shock absorbers	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Landing Gear - tires	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Lighting	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pitot Static System - Operation and power sources for other flight instruments	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pneumatic and environmental system - controls,	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components

	indicators, and regulating devices	
Aircraft Manuals	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pneumatic and environmental system - pressurization	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Pneumatic and environmental system - supply for ice protection systems	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - turbine wheels	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - allowable types of oil	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - compressors	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - controls and indications	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - deicing, anti-icing	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - oil system capacity and quantities	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Aircraft Manuals	Understand Powerplant - thrust reverse	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**

Auxiliary Power Unit	Can describe the operation of the airplane systems and components using correct terminology	Understand Auxiliary Power Unit (APU)
Auxiliary Power Unit	Can explain system or component limitations	Understand Auxiliary Power Unit (APU)
Auxiliary Power Unit	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals	Understand Auxiliary Power Unit (APU)
Auxiliary Power Unit	Can explain immediate action items or memory items, if appropriate	Understand Auxiliary Power Unit (APU)
Auxiliary Power Unit	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device	Understand Auxiliary Power Unit (APU)
Auxiliary Power Unit	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device	Understand Auxiliary Power Unit (APU)
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain RAIM prediction requirements when using GPS as a substitute means of navigation
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that RNAV systems using WAAS input may be used as an alternate means of navigation without restriction.
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that RNAV systems using DME/DME/IRU, without GPS input, may be used as an alternate means of navigation where valid DME/DME position updating is published as available (for example, by NOTAM or authorization).

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that In order to use a substitute means of navigation on departure procedures, pilots of aircraft with RNAV systems using DME/DME/IRU, without GPS input, must ensure their aircraft navigation system position is confirmed, within 1,000 feet, at the start point of takeoff roll. The use of an automatic or manual runway update is an acceptable means of compliance with this requirement. A navigation map display may also be used to confirm aircraft position, if pilot procedures and display resolution allow for compliance with the 1,000-foot tolerance requirement.
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can state the definition of RAIM
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that Pilots must extract waypoints, NAVAIDs, and fixes by name from the onboard navigation database and comply with the charted procedure or route

Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that pilots may not manually enter published procedure or route waypoints via latitude/longitude, place/bearing, or place/bearing/distance into the aircraft system
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that Operators operating under parts 91K, 121, 125, 129, and 135 must also be equipped with at least one other independent navigation system in addition to an installed and operable RNAV system. This additional system must be suitable, in the event of loss of navigation capability of the RNAV system, for proceeding safely to a suitable airport and completing an instrument approach.
Avionics and Communications	Understand Avionics and communications - suitability and use of Area Navigation (RNAV) systems while operating on, or transitioning to, conventional, i.e., non-RNAV, routes and procedures within the U.S. National Airspace System (NAS)	Can explain that for the purposes of flight planning, any required alternate airport must have an available IAP that does not require the use of GPS.
Avionics and	Understand Avionics and communications -	Can describe the operation of the airplane systems and components using correct terminology

Communications	Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Avionics and Communications	Understand Avionics and communications - autopilot	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - autopilot	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - autopilot	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - autopilot	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

	link, UHF/VHF/HF, satellite)	
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain system or component limitations

Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite) - Radio Failure / Mistune During A Dual Coupled ILS Approach	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Avionics and Communications	Understand EFVS Operations	Can apply knowledge specified in FAR § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to the current edition of FAA AC 90-106, Enhanced Flight Vision Systems, and FAR § 135.293(i) for EFVS task requirements during Part 135 competency checks. The FSB has determined that EFVS operations are operationally suitable under FAR § 91.176(a) or (b).
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Crew Alerting System (CAS) Caution Messages and Procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Avionics and Communications	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS) - Synthetic Vision-Primary Flight Display Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - emergency locator transmitter.	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that at system initialization, pilots must confirm the navigation database is current and verify the aircraft’s present position.

Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that RNAV DPs and STAR procedures must be retrieved by procedure name from the onboard navigation database and conform to the charted procedure
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that whenever possible, RNAV routes should be extracted from the database in their entirety, rather than loading RNAV route waypoints from the database into the flight plan individually. Selecting and inserting individual, named fixes from the database is permitted, provided all fixes along the published route to be flown are inserted
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots must use a lateral deviation indicator (or equivalent navigation map display), flight director and/or autopilot in lateral navigation mode on RNAV 1 routes. The full-scale course deviation indicator (CDI) deflection value of ±1 NM is acceptable
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain that pilots of aircraft without GPS/GNSS, using DME/DME/IRU, must ensure the aircraft navigation system position is confirmed, within 1,000 feet, at the start point of takeoff roll. The use of an automatic or manual runway update is an acceptable means of compliance with this requirement. A navigation map may also be used to confirm aircraft position, if pilot procedures and display resolution allow for compliance with the 1,000-foot tolerance requirement
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe the depiction of waypoint types (flyover and flyby) and path terminators
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain the types of navigation sensors (for example, DME, IRU, GPS/GNSS) utilized by the RNAV system and associated system prioritization/weighting/logic
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and	Understand Avionics and	Can explain system or component limitations

Communications	communications - Flight Management System (FMS)	
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Flight Management System (FMS) - FMS Powers Up In Single or Independent Mode procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that the onboard navigation data must be current and appropriate for the region of intended operation and must include the navigation aids, waypoints, and relevant coded terminal airspace procedures for the departure, arrival, and alternate airfields.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that RNAV 2 requires a total system error of not more than 2 NM for 95 percent of the total flight time
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that Receiver Autonomous Integrity Monitoring (RAIM) is a technique used within a GPS receiver/processor to monitor GPS signal performance and is achieved by a consistency check among redundant measurements.

Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that a SID is a published IFR air traffic control (ATC) DP providing obstacle clearance and a transition from the terminal area to the en route structure.
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - Global Navigation Satellite System (GNSS) - GPS / SBAS Reception Loss During RNAV	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

	(GPS) Approach to Minima proccedure	
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe the performance requirement and the fail-down capabilities of the system
Avionics and Communications	Understand Avionics and communications - GPS instrument approach procedures with localizer performance with vertical guidance lines of minima using the wide area augmentation system	Can describe the meaning and proper use of aircraft equipment/navigation suffixes
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can explain system or component limitations
Avionics and	Understand Avionics and communications -	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Communications	ground-based navigation systems and components	
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - ground-based navigation systems and components	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - indicating devices	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - indicating devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - indicating devices -	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

	(EVS) Malfunctions procedure	
Avionics and Communications	Understand Avionics and communications - indicating devices - (HUD) Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Charts Function DU 2 and 3 Inoperative procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Charts Function Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Equipment Loss While in RVSM Airspace procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - indicating devices - Video Malfunctions procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and	Understand Avionics and	Can explain system or component limitations

Communic ations	communications - Inertial Navigation Systems (INS)	
Avionics and Communic ations	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communic ations	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can explain immediate action items or memory items, if appropriate
Avionics and Communic ations	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communic ations	Understand Avionics and communications - Inertial Navigation Systems (INS) - IRS Align In Motion procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communic ations	Understand Avionics and communications - Radar	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communic ations	Understand Avionics and communications - Radar	Can explain system or component limitations
Avionics and Communic ations	Understand Avionics and communications - Radar	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communic ations	Understand Avionics and communications - Radar	Can explain immediate action items or memory items, if appropriate
Avionics and Communic ations	Understand Avionics and communications - Radar	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Avionics and Communications	Understand Avionics and communications - Radar	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can list required equipment for RNP operations
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret aircraft automation, mode annunciations, changes, alerts, interactions, reversions, and degradations
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain functional integration with other aircraft systems
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States,	Can list the types of navigation sensors used by the RNP system and their annunciations

	oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can interpret electronic displays and symbols
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the importance of maintaining the published path and maximum airspeeds while performing RNP operations with Radius to Fix (RF) legs (if applicable)
Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe flightcrew contingency procedures for a loss of RNP capability; and

Avionics and Communications	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can explain the performance requirement to couple the autopilot (AP)/flight director (FD) to the navigation system's lateral guidance on RNP procedures, if required
Avionics and Communications	Understand Avionics and Communications - Supporting Systems	Can interpret Other associated instrumentation and displays including any head-up display, guidance system, vision system, monitoring displays, status displays, mode annunciation displays, failure or warning annunciations, and associated system status displays that may be relevant. When such airborne systems are used as the basis for category(s) of minima (e.g. HUD or SVGS for Special Authorization (SA) CAT I; AP, F/D, or HUD for CAT I Landing Minima with Reduced Lighting (RVR 1800)), training should address the relationships between the various system components and the minima for which they are required.
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - terrain awareness/warning/ alert systems - (EGPWS) Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can explain immediate action items or memory items, if appropriate

Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - traffic awareness/warning/ avoidance systems - TCAS Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - transponder	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - transponder	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - transponder	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - transponder	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - transponder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - transponder	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand EFVS Operations	Can describe applicable airworthiness criteria for EFVS-TD capable systems IAW FAR § 91.176(a)(1) as described in an Airplane Flight Manual or its supplement, AFM(S).

Avionics and Communications	Understand EFVS Operations	Can describe applicable airworthiness criteria for EFVS-100 capable systems IAW FAR § 91.176(b)(1) as described in an Airplane Flight Manual or its supplement, AFM(S).
Avionics and Communications	Understand EFVS Operations	Can explain all required pilot flightcrew members must have received and logged the appropriate ground training in EFVS operations IAW FAR § 61.66(a)(1). All PICs or those manipulating the controls (PF) of an aircraft during EFVS operations must have received and logged the appropriate flight training in EFVS operations IAW FAR § 61.66(b)(1). A logbook endorsement or record of training completion is required for the appropriate EFVS operation (EFVS-TD and/or EFVS-100) unless using a military, 61.66(f) exemption OR the pilot can show documentation of satisfactory completion of EFVS-100 operations prior to March 13, 2018.
Avionics and Communications	Understand EFVS Operations	Can explain the checking requirements for EFVS operations as an approved air carrier. For Part 135 operations, FAR § 135.293(i) requires competency checks completed under FAR § 135.293(b) include tasks appropriate to the EFVS operations the certificate holder is authorized to conduct.
Avionics and Communications	Understand EFVS Operations	Can explain pilots conducting EFVS operations for parts 91K, 121, 125, and 135 maintain recent flight experience through satisfactory completion of EFVS tasks and maneuvers during their recurring proficiency checks or competency checks.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS operational credit is credit for a portion of flight visibility prescribed by the IAP being flown that is satisfied by the enhanced image provided by the EFVS. EFVS operational credit is authorized in FAA OpSpec C048.

Avionics and Communications	Understand EFVS Operations	Can describe EFVS operational credit is used by authorized parts 121, 125, and 135 CHs and part 129 foreign air carriers to determine minimum visibilities to: 1. Dispatch, release, or take off a flight under instrument flight rules (IFR) when the forecast weather at the destination airport is equal to or greater than the authorized minimums for use with an EFVS (refer to §§ 121.613, 125.361, and 135.219); and 2. Begin, execute, or continue an approach when the weather is reported to be equal to or greater than the authorized minimums for use with an EFVS (refer to §§ 121.651, 125.325, 125.381, and 135.225).
Avionics and Communications	Understand EFVS Operations	Can explain a standard EFVS credit. The Flight Technologies and Procedures Division evaluates available performance data from numerous sources such as other operational evaluations and Original Equipment Manufacturer (OEM) demonstrations conducted in the type design approval process. A standard credit is recommended for an installed EFVS sensor and is published in the Operational Suitability Report (OSR), Operational Credit for Enhanced Flight Vision Systems (EFVS). An operator applying for EFVS operational credit that elects to use the standard credit would not need to demonstrate system performance; however, this does not restrict an operator from conducting their own performance demonstration to determine operational credit. Industry consensus methodology for performance demonstrations is contained in RTCA DO-390, Test Procedures for Quantified Visual Advantage. The OSR can be found at https://drs.faa.gov/browse/excelExternalWindow/bb448b0f-d979-42a2-8d67-9346707e6d29.
Avionics and Communications	Understand EFVS Operations	Can explain Minimum Visibility with Use of EFVS for Parts 121, 125, 129, and 135. OpSpec C048 may include authorization to use a credit to reduce the visibility required for operating without the use of the EFVS (see Table 1, Sample Minimum Visibility Table). The creditis based on the demonstrated EFVS sensor performance.

Avionics and Communications	Understand EFVS Operations	Can explain Landing Weather Minimums for Recently Upgraded PICs. Recently upgraded PICs are subject to § 121.652, § 125.379, or § 135.225(e), which temporarily raise IAP minimums to afford an extra layer of safety while experience operating as PIC is gained. EFVS minimum visibility should not be used until the requirements of these regulations are met, as this may negate the safety margins intended by these regulations.
Avionics and Communications	Understand EFVS Operations	Can explain Alternate Airport Weather. The use of EFVS minimum visibility is not advised for alternate airport planning. However, once in flight, a pilot may use EFVS minimum visibilities to begin an approach at an alternate airport.
Avionics and Communications	Understand EFVS Operations	Can ensure considerations for Part 91K, 125, or 135 Pilot Training Programs. Initial training for pilots under part 91K, 125, or 135 must include the required elements listed in FAR § 61.66(a)(2) and (b)(2). The required elements and suggested methods of meeting said requirements can be found in Appendix A. Part 91K, 125, or 135 competency checks should include appropriate EFVS tasks.
Avionics and Communications	Understand EFVS Operations	Can demonstrate familiarization with an overview per FAR § 91.176, parts 121, 125, and 135 CHs require OpSpec C048 to conduct EFVS-100 or EFVS-TD operations, and may include provisions to use EFVS operational credit. Part 91K program managers require MSpec C048 to conduct EFVS-100 or EFVS-TD operations. MSpec C048 does not include provisions to use EFVS operational credit.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 1. Airworthiness Documentation. Excerpts from the AFM(S) that identify the EFVS operation(s) for which the system received airworthiness approval. The FAA recommends incorporating any procedures or operating limitations in the AFM(S) into the approved EFVS training curriculum and operating manuals.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 2. Operating Manuals. Applicable sections of operating manuals (e.g., Airplane Operations Manual (AOM), Flight Operations Manual (FOM), pilot's operating handbook (POH), and/or quick reference handbook (QRH)) that contain the operator's procedures or provisions for using an EFVS. These procedures can be incorporated in the operator's approved EFVS training curriculum and in the AFM(S).

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 3. EFVS Pilot Training Curriculum. A proposed EFVS training curriculum that ensures the pilot meet the requirements of § 61.66. Paragraph 9 and Appendix A contain information for developing a training curriculum to include the required ground training subjects and flight training tasks required by § 61.66(a) and (b). It is acceptable to incorporate a previously approved curriculum provided by a part 141 or 142 school.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 4. EFVS Provisions in the MEL. If the applicant is seeking MEL relief for EFVS, they should provide the proposed MEL containing appropriate operations and maintenance procedures that consider all applicable components of the EFVS during MEL submission, review, and approval.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 5. Application for Operational Credit. Operators operating under parts 121, 125, and 135 CHs applying for authorization to use EFVS operational credit should provide: a. A statement of proposed credit. Operators may propose use of the standard credit published in the EFVS OSR, which is based on previous demonstrations of system visual advantage. When an operator elects to use the standard credit, it is not necessary to demonstrate visual advantage during the operational demonstration. If the applicant elects to perform their own demonstration, AC 20-167 provides methods that can be used to demonstrate quantified visual advantage in the certification process. b. EFVS training curriculum for dispatchers or other persons exercising operational control, as described in paragraph 9 and Appendix C. c. Dispatch procedures manual or a general operations manual, as applicable, containing procedures for using the authorized EFVS operational credit to determine the minimum visibilities for use with EFVS.
Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of applications for OpSpec or MSpec C048 should be submitted to a responsible Flight Standards Safety Assurance office. Although other documentation may be acceptable, the FAA recommends providing the following items in the application to facilitate the review process: 6. EFVS Maintenance Procedures. EFVS maintenance procedures or programs as described in Appendix B. If the applicant is responsible for the training of maintenance personnel, the applicant can also provide an EFVS training curriculum for maintenance personnel, as described in paragraph 9 and Appendix B.

Avionics and Communications	Understand EFVS Operations	Can demonstrate general awareness of EFVS Operational Demonstration for Parts 91K, 121, 125, and 135 Applications. The FAA's process for approval and acceptance includes observing and evaluating the operator's ability to perform the proposed operation(s) in accordance with the procedures, guidelines, and parameters described in the operator's formal application. The means for meeting the operational demonstration objectives and an appropriate timeline are established through an agreement between the operator and the responsible Flight Standards Safety Assurance office. The are many acceptable means by which an operational demonstration can be accomplished (e.g., tabletop exercises, simulators, classroom observations, observations of line operations, observations of training flights, or any other agreed-upon means).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(i) can demonstrate an overview of the regulations relevant to EFVS operations. A list of the regulations are in Appendix D, Related Regulations and Guidance. Appendix D includes 61.66, 91.1065, 121.407, 121.409, 121.441 including Appendices F and H, 125.287, 135.293, 91.176, 91.189(d) and (e), 91.1039, 121.651, 125.325, 125.381, 135.225, 91.905, AC 20-167, AC 61-65, AC 120-54, AC 120-57, AC 120-71, and AC 120-118.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(i) can demonstrate an overview of an AFM or its supplement (AFM(S)) or other manufacturer documentation that specifies the type of EFVS operation the EFVS is certified to conduct, specifies performance applicable to the use of operational credit, or defines specific procedures, conditions, or limitations associated with operating the EFVS. In some cases, procedures described in an AFM(S) may be more restrictive than the regulations.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the characteristics of the enhanced imagery provided by an EFVS. An EFVS image must be real-time, conformal, and sensor-based. Imagery that is computer-generated from a database, such as a synthetic image, cannot be used to conduct an EFVS operation.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the symbology and equipment requirements to be used for EFVS operations to touchdown and rollout (EFVS-TD) operations listed under 14 CFR part 91, § 91.176(a)(1).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(ii) can demonstrate an overview of the symbology and equipment requirements of an EFVS to be used for EFVS operations to 100 feet above the touchdown zone elevation (TDZE) (EFVS-100) operations listed under § 91.176(b)(1).
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the controls for the EFVS image to include display brightness, contrast, and image modes.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the control for turning the EFVS image on or off. This control is important, because if the sensor imagery were to obscure the pilot's view of the outside scene, the pilot should have a readily available means to immediately remove the sensor imagery from the Head-Up Display (HUD). However, in order to continue an EFVS operation, the pilot should reactivate the image as soon as possible.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain how computer-generated synthetic elements are presented in the image, if applicable. Some systems may integrate synthetic vision elements into the image displayed on the HUD. A pilot should be able to differentiate between the sensor-based elements and the computer-generated elements.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iii) explain the runway and extended runway centerline symbology presented during the approach phase.
Avionics and	Understand EFVS Operations	Per § 61.66(a)(2)(iii) can explain the field of view (FOV) of the EFVS display.

Communications		
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can explain the imaging technology of the EFVS sensor and the related limitations (i.e., light detection, obstacle detection, weather types, and FOV). The AFM(S) may specify any limitations or demonstrated performance applicable to the installed EFVS. An EFVS can display imagery that may significantly improve a pilot's capability to detect approach lights and visual references of the runway environment that may not otherwise be visible using natural vision. Not all EFVS sensors have the same imaging capabilities. Some sensors may image particular materials and some may focus in specific energy spectrums. Some sensor technologies are more affected by certain weather conditions (e.g., obscurations and precipitation). Some systems utilize multiple sensors to combine the benefits from different technologies.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can demonstrate an overview on interpreting a sensor-generated scene presented by the EFVS. Images may have characteristics and contain artifacts that are unique to the sensor technology, EFVS image processing software, or display characteristics (i.e., monochrome colors). An external scene generated from infrared technology may be different from a scene generated from another technology or combination of technologies.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(iv) can demonstrate an overview of image anomalies of the installed EFVS. Anomalies such as "noise," "blooming," parallax, and other visual effects may be more prevalent in different EFVS installations.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of flight planning considerations for sensor performance and limitations.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can explain the optimal EFVS settings for different phases of flight and meteorological conditions.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of techniques for identifying visual references with natural vision at 100 feet above the TDZE for EFVS-100 operations. There may be several techniques that crews can use to ensure that visual references are seen with natural vision while continuing to use the EFVS image. It is important that these techniques do not reinforce deactivating the EFVS image more than momentarily during the EFVS operation.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of considerations for conducting EFVS operations with a limited EFVS FOV. A combination of crosswind correction, approach course offset, and the lateral FOV may result in the inability of the pilot to acquire and maintain visual references.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of considerations for executing a go-around below a DA/DH or MDA. Whether a pilot is using an EFVS or natural vision, obstacle clearance should not be assumed when initiating a go-around below a DA/DH or MDA or after the missed approach point. The missed approach procedure should be thoroughly briefed and accurately flown, and may need additional climb performance beyond the standard 200 feet per nautical mile to ensure adequate obstacle clearance.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of the considerations for visual segment obstacle clearance. Pilots using an EFVS should be careful not to conclude that the flightpath is free of obstacles because no obstacles are distinctly visible in the EFVS image. The approach procedure should be thoroughly briefed and accurately flown.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) can demonstrate an overview of the considerations for conducting EFVS operations on special instrument approach procedures (IAP). Operators that have a specific approval from the FAA to conduct instrument approaches using special IAPs should evaluate those instrument procedures to determine their compatibility with EFVS operations. These procedures may have nonstandard features or special conditions that may not be compatible with EFVS operations or the performance of an EFVS sensor.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(v) demonstrate an overview of the considerations for conducting taxi operations after conducting an EFVS operation. Once the EFVS operation is complete, the pilot may have to taxi at an airport with Low-Visibility Operations (LVO)/Surface Movement Guidance and Control System (SMGCS) operations in effect. Although an EFVS may provide some increased situation awareness during taxi operations, natural vision is still essential.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vi) can demonstrate an overview of the effect of obscuration types, precipitation conditions, and low ceilings or cloud layers as contributing factors to the variable and unpredictable characteristics of EFVS sensor performance or EFVS sensor and image quality.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vi) demonstrate an overview of visibility reporting equipment (e.g., Runway Visual Range (RVR), automated surface observing system (ASOS), and Automated Weather Observing System (AWOS)) and their limitations, reporting increments, and relationship to actual flight visibility on the approach.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the operational concepts and the procedures used in EFVS-TD operations, as applicable.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the operational concepts and the procedures used in EFVS-100 operations, as applicable.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following system preflight and in-flight procedures: a. An integrity check of the sensor window.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following system preflight and in-flight procedures: b. System tests and warmup time.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following system preflight and in-flight procedures: c. System control adjustments, to include appropriate setting of EFVS contrast, brightness, and symbology.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following system preflight and in-flight procedures: d. EFVS image alignment procedures with the natural vision image.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: a. Callouts for continuing descent below the DA/DH or MDA using the EFVS.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: b. Callouts for transition from enhanced image to natural vision at 100 feet above the TDZE during an EFVS-100 operation.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: c. Callouts to clearly communicate the decision to land or go around.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following pilot flying (PF) and pilot monitoring (PM) communications: d. Callouts for abnormal EFVS operations.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: a. Expectations of system performance and limitations in reported weather conditions and a minimum visibility for the use of an EFVS (if applicable).

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: b. EFVS callouts.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following items to be briefed prior to initiating an approach using the EFVS: c. Other approach considerations that may affect EFVS operations such as final approach offsets and ground infrastructure.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the following items to be briefed prior to initiating an approach using the EFVS: d. Missed approach considerations and procedure.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the following items to be briefed prior to initiating an approach using the EFVS: e. The taxi operation considerations in reported weather conditions.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can explain the PM use of the repeater display during EFVS-TD operations. The PM uses the display to assess the safe conduct of the approach, landing, and rollout, and intervene if necessary in visibilities where natural vision may not be sufficient.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) explain the procedure used for determining minimum visibility for use of EFVS for the purpose of releasing the flight or executing an approach, as applicable.
Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(vii) can demonstrate an overview of techniques for identifying EFVS system failures and corresponding procedures. A proper cross-check of the HUD instrumentation presentations against the EFVS sensor image could help recognize malfunctions of the navigation equipment or improper presentation of elements in the visual scene during the approach. In the event any required component fails during an EFVS operation until touchdown, the PF should initiate a go-around. However, this does not preclude a pilot's authority to continue to a landing and rollout if the pilot considers that a safer course of action.

Avionics and Communications	Understand EFVS Operations	Per § 61.66(a)(2)(viii) can integrate the following: it is necessary for the pilot training curriculum to include the interpretation of approach and runway lighting systems and their display characteristics when using an EFVS. This could be accomplished by including an overview of different light sources used in airport and approach lighting systems and the ability of the EFVS to detect them. An EFVS based only on infrared sensor technology may not be capable of imaging light-emitting diode (LED) lighting because energy is not emitted in an infrared spectrum. It is important that pilots are familiar with the potential use of LEDs at their destination and any corresponding limitations of their EFVS. For more information, please refer to Information for Operators (InFO) 11004, Enhanced Flight Vision System (EFVS), Enhanced Vision Systems (EVS), and Night Vision Goggles (NVG) Compatibility with Light-Emitting Diodes (LEDs) at Airports and on Obstacles. You can find InFO 11004 at https://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info.
Avionics and Communications	Understand EFVS Operations	Can explain those portions of this chapter that relate to EFVS flight operations and limitations, including the Airplane Flight Manual or Rotorcraft Flight Manual limitations.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS sensor imagery, required aircraft flight information, and flight symbology.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS display, controls, modes, features, symbology, annunciations, and associated systems and components.
Avionics and Communications	Understand EFVS Operations	Can explain EFVS sensor performance, sensor limitations, scene interpretation, visual anomalies, and other visual effects.

Avionics and Communications	Understand EFVS Operations	Can explain preflight planning and operational considerations associated with using EFVS during taxi, takeoff, climb, cruise, descent and landing phases of flight, including the use of EFVS for instrument approaches, operating below DA/DH or MDA, executing missed approaches, landing, rollout, and balked landings.
Avionics and Communications	Understand EFVS Operations	Can explain weather associated with low visibility conditions and its effect on EFVS performance.
Avionics and Communications	Understand EFVS Operations	Can explain normal, abnormal, emergency, and crew coordination procedures when using EFVS.
Avionics and Communications	Understand EFVS Operations	Can interpret approach and runway lighting systems and their display characteristics when using an EFVS.
Avionics and Communications	Understand EFVS Operations	Can demonstrate an understanding of the applicable EFVS equipment airworthiness requirements for operations to touchdown and rollout. This includes a displayed EFVS sensor image for the pilot monitoring where the symbology does not obscure the runway environment. See 91.176(a)(1)(i)(A) through (F) and (ii) for details.
Avionics and Communications	Understand EFVS Operations	Can ensure the pilot conducting the EFVS operation may not use circling minimums.
Avionics and Communications	Understand EFVS Operations	Each required pilot flightcrew member must demonstrate adequate knowledge of, and familiarity with, the aircraft, the EFVS, and the procedures to be used.
Avionics and Communications	Understand EFVS Operations	Can ensure the aircraft must be equipped with, and the pilot flying must use, an operable EFVS that meets the equipment requirements of paragraph (a)(1) of this section.
Avionics and Communications	Understand EFVS Operations	Ensure when a minimum flightcrew of more than one pilot required, the pilot monitoring must use the display specified in paragraph (a)(1)(ii) to monitor and assess the safe conduct of the approach, landing, and rollout.

Avionics and Communications	Understand EFVS Operations	Can appreciate why the aircraft must continuously be in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal maneuvers.
Avionics and Communications	Understand EFVS Operations	Appreciate why the descent rate must allow touchdown to occur within the touchdown zone of the runway of intended landing.
Avionics and Communications	Understand EFVS Operations	Can ensure a person exercising the privileges of a pilot certificate issued under this chapter, any person serving as a required pilot flightcrew member of a U.S.-registered aircraft, or any person serving as a required pilot flightcrew member for a part 121, 125, or 135 operator, must be qualified in accordance with part 61 and, as applicable, the training, testing, and qualification provisions of subpart K of this part, part 121, 125, or 135 of this chapter that apply to the operation;
Avionics and Communications	Understand EFVS Operations	Can ensure each person acting as a required pilot flightcrew member for a foreign air carrier subject to part 129, or any person serving as a required pilot flightcrew member of a foreign registered aircraft, must be qualified in accordance with the training requirements of the civil aviation authority of the State of the operator for the EFVS operation to be conducted.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under this part must conduct the operation in accordance with a letter of authorization for the use of EFVS unless the operation is conducted in an aircraft that has been issued an experimental certificate under § 21.191 of this chapter for the purpose of research and development or showing compliance with regulations, or the operation is being conducted by a person otherwise authorized to conduct EFVS operations under paragraphs (a)(2)(ix) through (xii) of this section. A person applying to the FAA for a letter of authorization must submit an application in a form and manner prescribed by the Administrator.

Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under part 121, 129, or 135 of this chapter must conduct the operation in accordance with operations specifications authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting an EFVS operation during an authorized Category II or Category III operation must conduct the operation in accordance with operations specifications, management specifications, or a letter of authorization authorizing EFVS operations during authorized Category II or Category III operations.
Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless the pilot determines that the enhanced flight visibility observed by use of an EFVS is not less than the visibility prescribed in the instrument approach procedure being used.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless from the authorized DA/DH to 100 feet above the touchdown zone elevation of the runway of intended landing, any approach light system or both the runway threshold and the touchdown zone are distinctly visible and identifiable to the pilot using an EFVS. (A) The pilot must identify the runway threshold using at least one of the following visual references - (1) The beginning of the runway landing surface; (2) The threshold lights; or (3) The runway end identifier lights. (B) The pilot must identify the touchdown zone using at least one of the following visual references - (1) The runway touchdown zone landing surface; (2) The touchdown zone lights; (3) The touchdown zone markings; or (4) The runway lights.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized DA/DH and land unless at 100 feet above the touchdown zone elevation of the runway of intended landing and below that altitude, the enhanced flight visibility using EFVS must be sufficient for one of the following visual references to be distinctly visible and identifiable to the pilot - (A) The runway threshold; (B) The lights or markings of the threshold; (C) The runway touchdown zone landing surface; or (D) The lights or markings of the touchdown zone.
Avionics and Communications	Understand EFVS Operations	Can explain the Administrator may prescribe additional equipment, operational, and visibility and visual reference requirements to account for specific equipment characteristics, operational procedures, or approach characteristics. These requirements will be specified in an operator's operations specifications, management specifications, or letter of authorization authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can demonstrate an understanding of the applicable EFVS equipment airworthiness requirements for operations to 100 feet above the touchdown zone. See 91.176(a)(1)(i)(A) through (F) for details; however, a flare prompt, flare guidance, or height above ground level need not be present for operations to 100 feet above the touchdown zone.
Avionics and Communications	Understand EFVS Operations	Can ensure the pilot conducting the EFVS operation may not use circling minimums.
Avionics and Communications	Understand EFVS Operations	Each required pilot flightcrew member must demonstrate adequate knowledge of, and familiarity with, the aircraft, the EFVS, and the procedures to be used.

Avionics and Communications	Understand EFVS Operations	Can ensure the aircraft must be equipped with, and the pilot flying must use, an operable EFVS that meets the equipment requirements of paragraph (b)(1) of this section.
Avionics and Communications	Understand EFVS Operations	Appreciate why the aircraft must continuously be in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal maneuvers.
Avionics and Communications	Understand EFVS Operations	Can appreciate why for operations conducted under part 121 or part 135 of this chapter, the descent rate must allow touchdown to occur within the touchdown zone of the runway of intended landing
Avionics and Communications	Understand EFVS Operations	Ensure a person exercising the privileges of a pilot certificate issued under this chapter, any person serving as a required pilot flightcrew member of a U.S.-registered aircraft, or any person serving as a required pilot flightcrew member for a part 121, 125, or 135 operator, must be qualified in accordance with part 61 and, as applicable, the training, testing, and qualification provisions of subpart K of this part, part 121, 125, or 135 of this chapter that apply to the operation;
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting operations under part 121, 129, or 135 of this chapter must conduct the operation in accordance with operations specifications authorizing the use of EFVS.
Avionics and Communications	Understand EFVS Operations	Can ensure a person conducting an EFVS operation during an authorized Category II or Category III operation must conduct the operation in accordance with operations specifications, management specifications, or a letter of authorization authorizing EFVS operations during authorized Category II or Category III operations.
Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless the pilot determines that the enhanced flight visibility observed by use of an EFVS is not less than the visibility prescribed in the instrument approach procedure being used.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless from the authorized MDA or DA/DH to 100 feet above the touchdown zone elevation of the runway of intended landing, any approach light system or both the runway threshold and the touchdown zone are distinctly visible and identifiable to the pilot using an EFVS. (A) The pilot must identify the runway threshold using at least one of the following visual references- (1) The beginning of the runway landing surface; (2) The threshold lights; or (3) The runway end identifier lights. (B) The pilot must identify the touchdown zone using at least one of the following visual references - (1) The runway touchdown zone landing surface; (2) The touchdown zone lights; (3) The touchdown zone markings; or (4) The runway lights.

Avionics and Communications	Understand EFVS Operations	Can ensure no Part 91 or air carrier operation continues an approach below the authorized MDA or DA/DH and land unless at 100 feet above the touchdown zone elevation of the runway of intended landing and below that altitude, the flight visibility must be sufficient for one of the following visual references to be distinctly visible and identifiable to the pilot without reliance on the EFVS - (A) The runway threshold; (B) The lights or markings of the threshold; (C) The runway touchdown zone landing surface; or (D) The lights or markings of the touchdown zone.
Avionics and Communications	Understand EFVS Operations	Can consider the compliance date. Beginning on March 13, 2018, a person conducting an EFVS operation to 100 feet above the touchdown zone elevation must comply with the requirements of paragraph (b) of this section.
Avionics and Communications	Understand EFVS Operations	Can determine the recommended EFVS Operational Credit capability for their make/model and possibly serial number for their aircraft using Appendices 1 and 2.
Avionics and Communications	Understand EFVS Operations	Can appreciate the EFVS Operational Credit Tables in Appendix 3 for risk management under Part 91 operations or compliance for air carrier operations.
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
CRM	Understand Mitigating Risks of an Incorrect Airport Surface Approach and Landing	Can explain the characteristics of effective CRM
CRM	Understand Crew Resource Management (CRM)	Can evaluate the authority of the pilot in command;

CRM	Understand Crew Resource Management (CRM)	Can discuss communication processes, decisions, and coordination, to include communication with Air Traffic Control, personnel performing flight locating and other operational functions, and passengers;
CRM	Understand Crew Resource Management (CRM)	Can manage building and maintenance of a flight team;
CRM	Understand Crew Resource Management (CRM)	Can discuss workload and time management;
CRM	Understand Crew Resource Management (CRM)	Ensure situational awareness;
CRM	Understand Crew Resource Management (CRM)	Can appreciate the effects of fatigue on performance, avoidance strategies and countermeasures;
CRM	Understand Crew Resource Management (CRM)	Can appreciate th effects of stress and stress reduction strategies
CRM	Understand Crew Resource Management (CRM)	Can determine aeronautical decision-making and judgment training tailored to the operator's flight operations and aviation environment.
CRM	Understand Crew Resource Management (CRM)	Can explain the airplane pilot competency framework and associated observable behaviors
CRM	Understand Crew Resource Management (CRM)	Can relate the airplaine pilot competency framework to threat and error management
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can describe the operation of the airplane systems and components using correct terminology

Electrical System	Understand Electrical System - circuit breakers and protection devices	Can explain system or component limitations
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - circuit breakers and protection devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Electrical System - controls	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - controls	Can explain system or component limitations
Electrical System	Understand Electrical System - controls	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - controls	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - controls	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - controls	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can explain system or component limitations

Electrical System	Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - generators	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - generators	Can explain system or component limitations
Electrical System	Understand Electrical System - generators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - generators	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - generators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - generators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Electrical System - indicators	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - indicators	Can explain system or component limitations
Electrical System	Understand Electrical System - indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - indicators	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - indicators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Electrical System	Understand Electrical System - batteries	Can describe the operation of the airplane systems and components using correct terminology
Electrical System	Understand Electrical System - batteries	Can explain system or component limitations
Electrical System	Understand Electrical System - batteries	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Electrical System - batteries	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Electrical System - batteries	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Electrical System	Understand Electrical System - batteries	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Electrical System	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Electrical System	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain immediate action items or memory items, if appropriate
Electrical System	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

	personal electronic devices)	
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can explain immediate action items or memory items, if appropriate
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices) - Aft Equipment Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

	devices) - Aft Floor Hot procedure	
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain system or component limitations
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental - Airplane Interior Fire / Smoke / Fumes procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain system or component limitations
Fire and Smoke Detection,	Understand Fire & smoke detection, protection, and	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Protection and Suppression	suppression - lavatory	
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can explain immediate action items or memory items, if appropriate
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - lavatory	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can describe the operation of the airplane systems and components using correct terminology
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain system or component limitations
Fire and Smoke Detection, Protection and	Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Suppression		
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can explain immediate action items or memory items, if appropriate
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fire and Smoke Detection, Protection and Suppression	Understand Fire & smoke detection, protection, and suppression - powerplant	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Flight Controls	Conduct Clean Configuration Stall prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Flight Controls	Conduct Landing Configuration Stall Prevention	Can explain the effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Flight Controls	Conduct Partial Flap Configuration Stall Prevention	Can explain effects of autoflight, flight envelope protection in normal and degraded modes, and unexpected disconnects of the autopilot or autothrottle/autothrust, if applicable to the aircraft
Flight Controls	Conduct Recovery From Unusual Flight Attitudes	Can explain and reference the operating envelope and structural limitations for the airplane

Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain system or component limitations
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Envelope protection—angle of attack warning and protection and speed protection	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - elevator	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - elevator	Can explain system or component limitations
Flight Controls	Understand Flight Controls - elevator	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - elevator	Can explain immediate action items or memory items, if appropriate

Flight Controls	Understand Flight Controls - elevator	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - elevator	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - flaps	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - flaps	Can explain system or component limitations
Flight Controls	Understand Flight Controls - flaps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - flaps	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - flaps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - flaps	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - rudder	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - rudder	Can explain system or component limitations
Flight Controls	Understand Flight Controls - rudder	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - rudder	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - rudder	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - rudder	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - speed brakes	Can describe the operation of the airplane systems and components using correct terminology

Flight Controls	Understand Flight Controls - speed brakes	Can explain system or component limitations
Flight Controls	Understand Flight Controls - speed brakes	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - speed brakes	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - speed brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - speed brakes	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - spoilers	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - spoilers	Can explain system or component limitations
Flight Controls	Understand Flight Controls - spoilers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - spoilers	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - spoilers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - spoilers - Ground Spoiler Failure Inflight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain system or component limitations

Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - Ailerons	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - Ailerons	Can explain system or component limitations
Flight Controls	Understand Flight Controls - Ailerons	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - Ailerons	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - Ailerons	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - Ailerons	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Flight Controls - Other Flight Deck Systems	Can describe Other flight deck systems related to AWO operations (e.g., autobrakes or autospoilers), and any associated limitations, characteristics, or constraints (e.g., touchdown pitch up or pitch down tendency of certain autospoiler or autobrake settings or non-normal conditions, time delays, or auto-deactivation features with go-around)

Flight Controls	Understand Flight Controls - trim systems	Can describe the operation of the airplane systems and components using correct terminology
Flight Controls	Understand Flight Controls - trim systems	Can explain system or component limitations
Flight Controls	Understand Flight Controls - trim systems	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Flight Controls	Understand Flight Controls - trim systems	Can explain immediate action items or memory items, if appropriate
Flight Controls	Understand Flight Controls - trim systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Flight Controls	Understand Flight Controls - trim systems - mach trim failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Flight Controls	Understand Ice Protection - anti-ice & de-ice.	Can explain system or component limitations
Flight Controls	Understand Ice Protection - pitot-static system protection	Can explain system or component limitations
Flight Controls	Understand Ice Protection airfoil surfaces	Can explain system or component limitations
Flight Controls	Understand Ice Protection windshield	Can explain system or component limitations
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Flight Planning and Performance	Understand determining landing performance per AFM	Can explain the importance of accurate and timely assesments of landing distance
Flight Planning and	Understand determining landing performance per AFM	Can identify and manage risks associated with runway overruns during the landing

Performance		
Flight Planning and Performance	Understand determining landing performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining landing performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining landing performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Conduct Rejected Takeoff	Can define relevant V-speeds for a rejected takeoff
Flight Planning and Performance	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can explain that ODPs are recommended for obstruction clearance and may be flown without ATC clearance unless an alternate DP (SID or radar vector) has been specifically assigned by ATC.
Flight Planning and Performance	Understand Avionics and communications - RNP operations in the United States, oceanic and remote continental airspace, and in foreign countries which adopt ICAO standards for RNP operations.	Can describe the meaning and proper use of aircraft equipment/navigation capability codes used on the flight plan
Flight Planning and Performance	Understand determing takeoff performance (e.g., balance field	Can explain and demonstrate the use of charts, tables, and data to determine performance

	length, VMCG) per AFM	
Flight Planning and Performance	Understand determing takeoff performance (e.g., balance field length, VMCG) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determing takeoff performance (e.g., balance field length, VMCG) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define Decision Speed
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 as Action Speed
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the difference between Takeoff Distance and Takeoff Run

Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can define V_1 and determine when V_1 is critical
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain why V_1 can be no less than V_{MCG} nor can be no more than V_R
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain when takeoff field length and V_1 are critical and the consequences
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the impact of wet runways on landing distances
Flight Planning and Performance	Understand determining accelerate-stop / accelerate-go distance per AFM	Can explain the importance of a timely V_1 call.
Flight Planning and Performance	Understand determining climb performance per AFM	Can demonstrate familiarization with aircraft performance or weight limit information to ensure safe obstacle clearance for "all engine" or "engine inoperative" missed approaches or rejected landings. Performance information should consider, as appropriate, flap settings, go-around procedures, acceleration segments or transition following an engine failure between the specified "all-engine lateral flightpath" (or radar vectors) and any specified "engine-inoperative lateral flightpath," using flap retraction, and cleanup height procedures. Refer to AC 120-91 for further information.
Flight Planning and Performance	Understand determining climb performance per AFM	Can explain considerations for OEI departure development
Flight Planning	Understand determining climb	Can state the definition of take off segment

and Performance	performance per AFM	
Flight Planning and Performance	Understand determining climb performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining climb performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining climb performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining climb performance per AFM	Can explain why using OEI data to comply with TERPS procedures is an unnecessary burden on operators
Flight Planning and Performance	Understand determining climb performance per AFM	Can describe the segments of an instrument departure procedure
Flight Planning and Performance	Understand determining climb performance per AFM	Can describe the drawbacks of using OEI data to comply with TERPS procedures
Flight Planning and Performance	Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight

Flight Planning and Performance	Understand determining cruise performance (e.g., optimum and maximum operating altitudes) per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining descent performance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining descent performance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining descent performance per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining fuel requirements per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand determining fuel requirements per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining fuel requirements per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance

Flight Planning and Performance	Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Flight Planning and Performance	Understand determining performance with an inoperative powerplant for all phases of flight per AFM	Can describe the effects of meteorological conditions on performance for any phase of flight and apply these factors to a specific chart, table, graph, or other performance data
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define declared runway distance
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define landing distance available
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define actual landing distance
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "adjusted landing distance"
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "unfactored (certified) landing distance"
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can define "factored landing distance"

Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can identify critical condition combinations that increase risk of a runway overrun
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can reference applicable regulations for preflight planning
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can calculate the required effective landing distance for dispatch under part 91 and part 135 operations
Flight Planning and Performance	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can explain that factors affecting landing distance are cumulative, and why mulitple small errors during landing can contribute to a runway overrun
Flight Planning and Performance	Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).	Can explain and demonstrate the use of charts, tables, and data to determine performance
Flight Planning and Performance	Understand Runway assessment and condition reporting and use of the Runway Condition Assessment Matrix (RCAM).	Can explain and demonstrate the use of charts, tables, and data to determine performance
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Flight Profiles and Maneuvers	Understand determining landing performance per AFM	Can explain the parameters and importance of a stabilized approach
Flight Profiles	Understand determining	Can explain the importance of timely decisions in relation V_1

and Maneuvers	accelerate-stop / accelerate-go distance per AFM	
Flight Profiles and Maneuvers	Understand determining climb performance per AFM	Can explain basic purpose and applicability of OEI departure procedures
Flight Profiles and Maneuvers	Understand Mitigating Risks of a Runway Overrun Upon Landing	Can describe the characteristics of a stabilized descent rate
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Recognition of impending stall indications and understanding of the need to initiate the stall recovery procedure at an impending stall.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Recognition of full stall indication (see paragraph 1-7) with the realization that most swept-wing transport category aircraft exhibit full stall characteristics different from those typically experienced in General Aviation (GA) aircraft used during certification training.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: For airplanes equipped with a stick pusher, recommended recovery actions in response to stick pusher activation.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Avoiding cyclical or oscillatory control inputs to prevent exceeding the structural limits of the airplane.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Structural considerations, including explanation of limit load, ultimate load, and the dangers of combining accelerative and rolling moments (i.e., the rolling pull) during recovery.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: The necessity for smooth, deliberate, and positive control inputs to avoid unacceptable load factors and secondary stalls.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: AOA must be reduced prior to controlling roll.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: Effectiveness of control surfaces and the order in which the control surfaces lose and regain their effectiveness (e.g., spoilers, ailerons, etc.).
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain proper recovery procedures should emphasize that a reduction of the AOA is required to initiate recovery of all stall events. Additional information to incorporate into recovery training includes: If a terrain awareness warning system (TAWS) warning is encountered during recovery from a low altitude stall event, recovery from the stall warning should take precedence. Once the airplane recovers from the stall event, then execute the TAWS escape maneuver.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: AOA versus pitch angle.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Rate of onset including rate of airspeed decay (both low and high).
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Airplane configuration and condition including weight, center of gravity (CG), landing gear, flaps/slats, spoilers/speed brakes, etc.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Asymmetric loading including thrust asymmetries, wing loading due to roll or yaw transients or uncoordinated flight.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: G loading.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Bank angle.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Thrust and lift vectors.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Thrust required versus thrust available.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Wind shear.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Altitude.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Mach effects.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Situational Awareness.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Mode confusion, including unexpected/unannounced mode changes.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Unexpected transition from automated to manual flight.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain an awareness of the factors that may lead to a stall event during automated and manual flight operations including: Contamination (ice), including the effect of icing on stall speed and stall warnings.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can demonstrate an understanding of AOA indicators (if installed) or interpretation of other representations of AOA such as pitch-limit indicators or speed display symbology that can assist in stall prevention.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain specific stall and low-speed buffet characteristics unique to the airplane type and any implications for the expected flight operations and airplane-specific stall recovery procedure (e.g., underwing mounted engines, t-tail, propellers, etc.).
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can describe thrust settings and its application.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can describe autothrottle/autothrust protection.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can demonstrate awareness of autoflight mode indications.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain incorrect use of (including input errors) flightpath automated systems.

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the operation and function of stall protection systems in normal, abnormal, and emergency situations, including the hazards of overriding or ignoring stall protection system indications. Awareness of the factors that may lead such systems to fail, as well as degraded modes, indications, or behaviors that may occur with system failures.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain buffet boundary and margins in flight planning and operational flying.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the lower margins for stall onset and recovery (i.e., coffin corner) and possible buffet cueing differences on the high-speed versus the low-speed margin.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the principles of high altitude aerodynamics, performance capabilities, and limitations; including high altitude operations and flight techniques (i.e., the need to avoid secondary stall by extended nose-down recovery, compared to lower altitudes).
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the differences in airplane performance (e.g., thrust available) during high versus low altitude operations, the effects of those differences on stall recovery, and the anticipated altitude loss during a recovery.
Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can explain the differences between transport category airplane certification and GA airplane certification regarding use of flight controls at high AOA. For example, if the roll control system is compromised and the ailerons are unable to produce the required roll recovery, the rudder may be used with care during stall prevention and recovery. To maintain structural integrity, it is important to guard against control reversals—avoid rapid fullscale reversal of control deflectio

Flight Profiles and Maneuvers	Understand Stall Prevention and Recovery	Can demonstrate general awareness of example events. Although significant emphasis should be placed on preventing stall events, it is important for pilots to understand that, although rare, stall events continue to occur. Studying the causes and contributing factors of stall events give pilots more knowledge to help prevent or if necessary, recover from a stall event. A review of stall-related accidents, incidents, ASAP, FOQA, and ASRS data for the specific airplane type or class should be included in ground training.
Flight Profiles and Maneuvers	Conduct Stall Prevention and Recovery	Can explain the STICK PUSHER. For airplanes equipped with a stick pusher, stall recovery training includes ground training and practical training in an FFS. It is important for pilots to experience the sudden forward movement of the control yoke/stick during a stick pusher activation. From observations, most instructors state that, regardless of previous academic training, pilots usually resist the stick pusher on their first encounter. Usually, they immediately pull back on the control yoke/stick rather than releasing pressure as they have been taught. Therefore, pilots must receive practical stick pusher training in an FFS to develop the proper response (allowing the pusher to reduce AOA) when confronted with a stick pusher activation. Stick pusher training should be completed as a demonstration/practice exercise, including repetitions, until the pilot's reaction is to permit the reduction in AOA even at low altitudes. Pilot response to a deliberate activation of the pusher is not a checked maneuver.
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Fuel System	Understand Fuel system - additives	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - additives	Can explain system or component limitations
Fuel System	Understand Fuel system - additives	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - additives	Can explain immediate action items or memory items, if appropriate

Fuel System	Understand Fuel system - additives	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - additives	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - capacity and quantities	Can explain system or component limitations
Fuel System	Understand Fuel system - capacity and quantities	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - capacity and quantities	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - capacity and quantities - Fuel Leak In Flight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - capacity and quantities - low fuel state procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - controls and indicators	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - controls and indicators	Can explain system or component limitations
Fuel System	Understand Fuel system - controls and indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - controls and indicators	Can explain immediate action items or memory items, if appropriate

Fuel System	Understand Fuel system - controls and indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - controls and indicators - Fuel Tank Temperature procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - cross-feeding	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - cross-feeding	Can explain system or component limitations
Fuel System	Understand Fuel system - cross-feeding	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - cross-feeding	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - cross-feeding	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - cross-feeding	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - drains	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - drains	Can explain system or component limitations
Fuel System	Understand Fuel system - drains	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - drains	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - drains	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - drains	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Fuel System	Understand Fuel system - fuel grade	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - fuel grade	Can explain system or component limitations
Fuel System	Understand Fuel system - fuel grade	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - fuel grade	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - fuel grade	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - fuel grade	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - fuel substitutions	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - fuel substitutions	Can explain system or component limitations
Fuel System	Understand Fuel system - fuel substitutions	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - fuel substitutions	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - fuel substitutions	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - fuel substitutions	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - fueling and defueling procedures	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - fueling and defueling procedures	Can explain system or component limitations

Fuel System	Understand Fuel system - fueling and defueling procedures	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - fueling and defueling procedures	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - fueling and defueling procedures	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - fueling and defueling procedures	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - pumps	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - pumps	Can explain system or component limitations
Fuel System	Understand Fuel system - pumps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - pumps	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - pumps - fuel boost pump failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - pumps - fuel boost pump failure procedure - Fuel Return Fail Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Fuel System	Understand Fuel system - transferring	Can describe the operation of the airplane systems and components using correct terminology
Fuel System	Understand Fuel system - transferring	Can explain system or component limitations

Fuel System	Understand Fuel system - transferring	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Fuel System	Understand Fuel system - transferring	Can explain immediate action items or memory items, if appropriate
Fuel System	Understand Fuel system - transferring	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Fuel System	Understand Fuel system - transferring	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - allowable types of fluid	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - capacity	Can describe the operation of the airplane systems and components using correct terminology

Hydraulic System	Understand Hydraulic system - capacity	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - capacity	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - capacity	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - capacity	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - capacity	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - pressure	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - pressure	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - pressure	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - pressure	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - pressure	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - pressure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - pumps	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - pumps	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - pumps	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Hydraulic System	Understand Hydraulic system - pumps	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - pumps	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - pumps	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - regulators/accumulators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Hydraulic System	Understand Hydraulic system - reservoirs	Can describe the operation of the airplane systems and components using correct terminology
Hydraulic System	Understand Hydraulic system - reservoirs	Can explain system or component limitations
Hydraulic System	Understand Hydraulic system - reservoirs	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Hydraulic System	Understand Hydraulic system - reservoirs	Can explain immediate action items or memory items, if appropriate
Hydraulic System	Understand Hydraulic system - reservoirs	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Hydraulic System	Understand Hydraulic system - reservoirs	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Ice Protection	Understand ground operations in icing conditions	Can explain that for aircraft type specific procedures, pilots should refer to the aircraft flight manuals or other manufacturer documents developed for that particular type aircraft
Ice Protection	Understand ground operations in icing conditions	Can explain that it is essential that the PIC have a thorough understanding of the deicing and anti-icing process and the approved procedures necessary to ensure that the aircraft is clean for takeoff.
Ice Protection	Understand Ice Protection - anti-ice & de-ice - Ice Shedding Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can describe the operation of the airplane systems and components using correct terminology
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can explain immediate action items or memory items, if appropriate
Ice Protection	Understand Ice Protection - anti-ice & de-ice.	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Ice Protection	Understand Ice Protection - pitot-static system protection	Can describe the operation of the airplane systems and components using correct terminology

Ice Protection	Understand Ice Protection - pitot-static system protection	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection - pitot-static system protection	Can explain immediate action items or memory items, if appropriate
Ice Protection	Understand Ice Protection - pitot-static system protection	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Ice Protection	Understand Ice Protection airfoil surfaces	Can describe the operation of the airplane systems and components using correct terminology
Ice Protection	Understand Ice Protection airfoil surfaces	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection airfoil surfaces	Can explain immediate action items or memory items, if appropriate
Ice Protection	Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Ice Protection	Understand Ice Protection airfoil surfaces	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Ice Protection	Understand Ice Protection windshield	Can describe the operation of the airplane systems and components using correct terminology
Ice Protection	Understand Ice Protection windshield	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Ice Protection	Understand Ice Protection windshield	Can explain immediate action items or memory items, if appropriate
Ice Protection	Understand Ice Protection windshield	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Ice Protection	Understand Ice Protection windshield -	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

	Windshield Cracked procedure	
Ice Protection	Understand Ice Protection windshield - Windshield Heat Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Landing Gear and Brakes	Conduct nosewheel steering - Nosewheel Steering failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - antiskid	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - brakes	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - brakes	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - brakes	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Landing Gear and Brakes	Understand Landing Gear - brakes	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - brakes	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - brakes	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - extension/retraction system	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - indicators	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - indicators	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - indicators	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

Landing Gear and Brakes	Understand Landing Gear - indicators	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - indicators	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - indicators	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - nosewheel steering	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Landing Gear and Brakes	Understand Landing Gear - shock absorbers	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Landing Gear and Brakes	Understand Landing Gear - tires	Can describe the operation of the airplane systems and components using correct terminology
Landing Gear and Brakes	Understand Landing Gear - tires	Can explain system or component limitations
Landing Gear and Brakes	Understand Landing Gear - tires	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Landing Gear and Brakes	Understand Landing Gear - tires	Can explain immediate action items or memory items, if appropriate
Landing Gear and Brakes	Understand Landing Gear - tires	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Landing Gear and Brakes	Understand Landing Gear - tires	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Lighting	Understand Lighting	Can describe the operation of the airplane systems and components using correct terminology
Lighting	Understand Lighting	Can explain system or component limitations
Lighting	Understand Lighting	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Lighting	Understand Lighting	Can explain immediate action items or memory items, if appropriate
Lighting	Understand Lighting	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Lighting	Understand Lighting	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**

MEL and CDL	Understand Auxiliary Power Unit (APU)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Automatic Dependent Surveillance – Broadcast (ADS-B) In and Out	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - autopilot	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - communication systems (e.g., data link, UHF/VHF/HF, satellite)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Electronic Flight Instrument Systems (EFIS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - emergency locator transmitter.	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Avionics and communications - Flight Management System (FMS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Global Navigation Satellite System (GNSS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - ground-based navigation systems and components	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - indicating devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Inertial Navigation Systems (INS)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - Radar	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - terrain awareness/warning/ alert systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Avionics and communications - traffic awareness/warning/ avoidance systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Avionics and communications - transponder	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Crew and Passenger Emergency Equipment - emergency exits	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Crew and Passenger Equipment - oxygen system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Crew and Passenger Equipment - passenger oxygen system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - circuit breakers and protection devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - controls	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - external and auxiliary power sources. (ground power and APU)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Electrical System - generators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Electrical System - indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Envelope protection—angle of attack warning and protection and speed protection	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - cargo and passenger compartments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - electrical/avionics, and batteries (on-aircraft and personal electronic devices)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - lavatory	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fire & smoke detection, protection, and suppression - powerplant	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - elevator	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Flight Controls - flaps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - rudder	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - speed brakes	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - spoilers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - stability augmentation system (e.g., yaw damper)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - Ailerons	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Flight Controls - trim systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - additives	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - capacity and quantities	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - controls and indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - cross-feeding	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Fuel system - drains	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - fuel grade	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - fuel substitutions	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - fueling and defueling procedures	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - pumps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Fuel system - transferring	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - allowable types of fluid	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - capacity	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - pressure	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - pumps	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Hydraulic system - regulators/accumulators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Hydraulic system - reservoirs	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection - anti-ice & de-ice.	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection - pitot-static system protection	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection airfoil surfaces	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Ice Protection windshield	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - antiskid	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - brakes	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - extension/retraction system	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - indicators	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - nosewheel steering	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Landing Gear - shock absorbers	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Landing Gear - tires	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Lighting	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pitot Static System - Operation and power sources for other flight instruments	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pneumatic and environmental system - pressurization	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Pneumatic and environmental system - supply for ice protection systems	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

MEL and CDL	Understand Powerplant - turbine wheels	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - allowable types of oil	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - compressors	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - controls and indications	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - deicing, anti-icing	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - oil system capacity and quantities	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
MEL and CDL	Understand Powerplant - thrust reverse	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Oil System	Understand Powerplant - allowable types of oil	Can describe the operation of the airplane systems and components using correct terminology
Oil System	Understand Powerplant - allowable types of oil	Can explain system or component limitations
Oil System	Understand Powerplant - allowable types of oil	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Oil System	Understand Powerplant - oil system capacity and quantities	Can describe the operation of the airplane systems and components using correct terminology
Oil System	Understand Powerplant - oil system capacity and quantities	Can explain system or component limitations
Oil System	Understand Powerplant - oil system capacity and quantities	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oil System	Understand Powerplant - oil system capacity and quantities	Can explain immediate action items or memory items, if appropriate
Oil System	Understand Powerplant - oil system capacity and quantities	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Oil System	Understand Powerplant - oil system capacity and quantities	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can describe the operation of the airplane systems and components using correct terminology
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can explain system or component limitations
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can explain immediate action items or memory items, if appropriate

Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Oxygen	Understand Crew and Passenger Equipment - oxygen system	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can describe the operation of the airplane systems and components using correct terminology
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can explain system or component limitations
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can explain immediate action items or memory items, if appropriate
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system - Inadvertent Oxygen Mask Activation	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oxygen	Understand Crew and Passenger Equipment - passenger oxygen system -	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

	Overweight Landing procedure	
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can describe the operation of the airplane systems and components using correct terminology
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain system or component limitations
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can explain immediate action items or memory items, if appropriate
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Oxygen	Understand Crew and Passenger Equipment - quick donning oxygen mask for crewmembers	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Oxygen	Understand determining performance with an inoperative powerplant for all	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

	phases of flight per AFM - Engine Failure Considerations procedure	
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can describe the operation of the airplane systems and components using correct terminology
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain system or component limitations
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can explain immediate action items or memory items, if appropriate
Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Pitot-static System	Understand Pitot Static System - associated instruments and the power source for those flight instruments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can describe the operation of the airplane systems and components using correct terminology
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain system or component limitations
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can explain immediate action items or memory items, if appropriate
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pitot-static System	Understand Pitot Static System - Operation and power sources for other flight instruments	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**

Pneumatic and Environmental Systems	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Fire & smoke detection, protection, and suppression - pneumatic and environmental	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can describe the operation of the airplane systems and components using correct terminology
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain system or component limitations
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can explain immediate action items or memory items, if appropriate

Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - controls, indicators, and regulating devices	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can describe the operation of the airplane systems and components using correct terminology
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain system or component limitations
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - heating, cooling, ventilation	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Pneumatic and Environme	Understand Pneumatic and environmental	Can describe the operation of the airplane systems and components using correct terminology

ntal Systems	system - pressurization	
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can explain system or component limitations
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - pressurization - Unpressurized Flight procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can describe the operation of the airplane systems and components using correct terminology
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can explain system or component limitations
Pneumatic and Environme	Understand Pneumatic and environmental	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

ntal Systems	system - supply for ice protection systems	
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can explain immediate action items or memory items, if appropriate
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Pneumatic and Environmental Systems	Understand Pneumatic and environmental system - supply for ice protection systems	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Powerplant	Conduct Powerplant Start	Can describe abnormal powerplant start procedures and limitations without APU
Powerplant	Understand Powerplant - turbine wheels	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - turbine wheels	Can explain system or component limitations
Powerplant	Understand Powerplant - turbine wheels	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - turbine wheels	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - turbine wheels	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device

Powerplant	Understand Powerplant - turbine wheels	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - allowable types of oil	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - allowable types of oil	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - allowable types of oil	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Powerplant	Understand Powerplant - compressors	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - compressors	Can explain system or component limitations
Powerplant	Understand Powerplant - compressors	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - compressors	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - compressors	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Powerplant	Understand Powerplant - compressors	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - controls and indications	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - controls and indications	Can explain system or component limitations
Powerplant	Understand Powerplant -	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals

	controls and indications	
Powerplant	Understand Powerplant - controls and indications	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - controls and indications	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Powerplant	Understand Powerplant - controls and indications - Engine Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - controls and indications - Pylon Hot procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Powerplant	Understand Powerplant - deicing, anti-icing	Can describe the operation of the airplane systems and components using correct terminology
Powerplant	Understand Powerplant - deicing, anti-icing	Can explain system or component limitations
Powerplant	Understand Powerplant - deicing, anti-icing	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Powerplant	Understand Powerplant - deicing, anti-icing	Can explain immediate action items or memory items, if appropriate
Powerplant	Understand Powerplant - deicing, anti-icing	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Powerplant	Understand Powerplant - deicing, anti-icing	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**

Preflight	Conduct Interior and exterior preflight	Can explain which items must be inspected per the OEM Manuals using pictorial preflight
Preflight	Conduct Interior and exterior preflight	Can explain the reasons for checking each item during preflight
Preflight	Conduct Interior and exterior preflight	Can describe how to detect possible defects
Preflight	Conduct Interior and exterior preflight	Can explain how to coordinate checklist with crew, if appropriate
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Thrust Reverse	Understand Powerplant - thrust reverse	Can describe the operation of the airplane systems and components using correct terminology
Thrust Reverse	Understand Powerplant - thrust reverse	Can explain system or component limitations
Thrust Reverse	Understand Powerplant - thrust reverse	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Thrust Reverse	Understand Powerplant - thrust reverse	Can explain immediate action items or memory items, if appropriate
Thrust Reverse	Understand Powerplant - thrust reverse	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Thrust Reverse	Understand Powerplant - thrust reverse - Dispatch With Inoperative Thrust Reverser(s) On Wet Runways procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Thrust Reverse	Understand Powerplant - thrust reverse - Thrust Reverser Failure procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device

Thrust Reverse	Understand Powerplant - thrust reverse - Thrust Reverser Manual Stow Procedure	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Weight and Balance	Understand Avionics and communications - Electronic Flight Bag (EFB)	Can reference air carrier weight and balance procedures if applicable
Weight and Balance	Understand determining weight and balance per AFM	Can explain and demonstrate the use of charts, tables, and data to determine performance
Weight and Balance	Understand determining weight and balance per AFM	Can demonstrate proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight
Course 3	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear recognition
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear pilot technique
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff after liftoff
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff while on the runway

Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter during takeoff while on the runway
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss windshear encounter on the approach
Windshear	Understand recognizing and escaping severe weather situations (windshear)	Can discuss general windshear recovery technique

Simulator Training Learning Objectives

SIM 1 Learning Objectives

SIM 1 Briefing Items

SIM 1 Tasks and Expectations

Simulator Session 1 (Initial Observation)	**Brief**	**Crew**	**Single**
Checking: Preflight Inspection	2.0	4.0	2.0
Checking: Start Procedures			
Checking: Taxiing/Runway Operations			
Checking: Pretakeoff Checks			
Checking: Normal Takeoff			
Checking: Area Departure			
Checking: Steep Turns			
Checking: Stall Prevention (Approaches to Stalls)			
Checking: Area Arrival			
Checking: Holding			
Checking: Normal ILS Approach			
Checking: Coupled Approach			
Checking: Nonprecision Approach			
Checking: Missed Approach from an ILS			
Checking: EFVS Approach			
Checking: Normal Landing			
Checking: Maneuver by Partial Panel			
Checking: Unusual Attitude Recovery			

SIM 2 Learning Objectives

SIM 2 Briefing Items

SIM 2 Tasks and Expectations

Simulator Session 2 (Second Checking Event)	**Brief**	**Crew**	**Single**
Checking: Crosswind Takeoff	2.0	4.0	2.0

Checking: Instrument Takeoff			
Checking: Takeoff with Powerplant Failure			
Checking: Rejected Takeoff			
Checking: Powerplant Failure			
Checking: Engine-out ILS			
Checking: Second Nonprecision Approach			
Checking: Second Missed Approach			
Checking: Circling Approach			
Checking: Crosswind Landing			
Checking: Landing from an ILS			
Checking: Landing with an Engine Out			
Checking: Circling Approach to Landing			
Checking: Rejected Landing			
Checking: No-flap Approach to Landing			
Checking: EFVS Landing			
Checking: System Malfunction			

SIM 3 Learning Objectives

SIM 3 Briefing Items

SIM 3 Tasks and Expectations

Simulator Session 3 (Scenario 1 or Train-to-Proficiency & Recheck)	**Brief**	**Crew**	**Single**
Scenario 1 to be developed by the training provider IAW TSWG annual guidance OR remaining checking events to be trained-to-proficiency.	2.0	4.0	2.0

SIM 4 Learning Objectives

SIM 4 Briefing Items

SIM 4 Tasks and Expectations

Simulator Session 4 (Scenario 1 or 2)	**Brief**	**Crew**	**Single**
	2.0	4.0	2.0

Scenario 2 to be developed by the training provider IAW TSWG annual guidance.			

Appendix D – Specialty Curriculum Learning Objectives

In accordance with Recommendation 6.1(c)(4), the standardized curriculum will include core curriculum elements and specialty curriculum elements. Specialty curriculum elements may not apply to all operators. Specialty curricula will be used to address training requirements associated with OpSpecs. While all operators of a particular aircraft type may not need a certain OpSpec, those who do need the OpSpec will need a pathway for training. Appendix D contains the recommended curricula for CPDLC. See section 4.2.3.3 Special Authorizations for more details. The TSWG will recommend additional specialty curricula in future recommendation reports.

G-V Standardized Curriculum
Controller Pilot Data Link Communications
Specialty Curriculum Learning Objectives

Table of Contents

CPDLC Course Overview

CPDLC Initial			
Day 1	**Planned Hours**	**Ground**	**Systems Integration**
Use of CPDLC	**4.0**	**2.0**	**2.0**
Aircraft Manuals			
Avionics and Communications			
MEL and CDL			

Data Link Communications Training

Part 135 operators should have a training program addressing the operational practices, procedures, and training items related to data link communication operations (e.g., initial, upgrade, or recurrent training for pilots, operational control personnel, and maintenance personnel). If criteria for training or checking are other than as specified in AC 90-117, the criteria may be found in Flight Standardization Board (FSB) reports applicable to a particular aircraft type.

Note: A separate training program is not required if data link communication training is integrated in the current training program. However, the applicant must identify the training elements from AC 90-117 within the existing training program.

Part 135 operators should ensure their process contains training for pilots on equipment requirements, normal and non-normal operations and procedures, and limits of their data link communication capability. Pilots must receive data communications training specific to the avionics suite they will be operating. A common type rating does not guarantee the pilot has received training on the data communications equipment installed on a particular aircraft. Operators should include the following objectives to ensure appropriate pilot data link communications qualification: (1) Provide necessary pilot knowledge of data link performance-based communication and surveillance concepts, systems, procedures, and skills to properly respond to data link communication clearances and advisories; and (2) Identify human factor issues specific to pilot operation and interaction with the communication software, hardware, and operating environment (e.g., head-down time, situational awareness, or loss of pilot response time in the Required Communication Performance (RCP) specification).

Ground School Learning Objectives

Day 1 Ground School Learning Objectives

Initial CPDLC	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Aircraft Manuals	Understand Avionics and communications - ADS – Contract (ADS-C)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components
Initial CPDLC	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Avionics and Communications	Understand Avionics and communications - ADS – Contract (ADS-C)	Can describe the operation of the airplane systems and components using correct terminology
Avionics and Communications	Understand Avionics and communications - ADS – Contract (ADS-C)	Can explain system or component limitations
Avionics and Communications	Understand Avionics and communications - ADS – Contract (ADS-C)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals
Avionics and Communications	Understand Avionics and communications - ADS – Contract (ADS-C)	Can explain immediate action items or memory items, if appropriate
Avionics and Communications	Understand Avionics and communications - ADS – Contract (ADS-C)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device
Avionics and Communications	Understand Avionics and communications - ADS – Contract (ADS-C)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device
Avionics and Communications	Understand Avionics and communications - CPDLC	Can explain AFM and AFM Supplement limitations

Initial CPDLC	Tasks	Knowledge & Cognitive Learning Objectives
MEL and CDL	Understand Avionics and communications - ADS – Contract (ADS-C)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures

Systems Integration Training Learning Objectives

SIT 1 Learning Objectives

Tasks	Knowledge & Cognitive Learning Objectives	Motor Skill Learning Objectives	Attitude Learning Objectives	Task Expectation Rating
Understand Avionics and communications - ADS – Contract (ADS-C)	Can demonstrate familiarization with the contents of OEM manuals with regard to the systems and components			High
Conduct use of CPDLC		Can execute proper use of data link communication controls, procedures, and limitations.		High
Conduct use of CPDLC		Can perform accepting, receiving, rejecting, or canceling messages		High
Conduct use of CPDLC		Can perform storing and retrieving messages		High
Conduct use of CPDLC		Can perform loading messages into appropriate controls/displays for use (e.g., flight management system (FMS)) formulating and sending messages		High

Conduct use of CPDLC			Can appreciate that departures and departure transitions are not included in the loadable route uplink and must be manually entered by the pilot into the FMS when provided in the Departure Clearance (DCL) Refer to the NAS Data Communications Guide	High
Conduct use of CPDLC		Can perform loading message requests from the FMS (e.g., flight plan waypoints into data link communication for transmission, if applicable)		High
Conduct use of CPDLC		Can perform managing the communications systems		High
Conduct use of CPDLC		Can perform establishing and terminating system operation		High
Conduct use of CPDLC		Can perform switching use of Radio Frequency (RF) media (if this is a pilot-controllable feature).		High
Conduct use of CPDLC			Can appreciate items particular to an air carrier's implementation or the uniqueness of its aircraft capability and/or procedures	High
Conduct use of CPDLC		Can identify applicable message sets, expected transmission times, failure annunciations, constraints, and limitations		High

Conduct use of CPDLC		Can perform logon/notification procedures and reestablishing system operation after loss of network logon/notification		High
Conduct use of CPDLC			Can apply CRM in responding to data link communication exchanges	High
Conduct use of CPDLC		Can identify data link communication modes of operation		High
Conduct use of CPDLC		Can perform normal and non-normal pilot operating procedures		High
Conduct use of CPDLC		Can execute conditional clearances and the adherence to certain conditions or restrictions such as changing a flight level based on a time or place		High
Conduct use of CPDLC		Can interpret display features		High
Conduct use of CPDLC		Can execute weather deviations, offsets, and waypoint sequencing		High
Conduct use of CPDLC		Can interpret advisories and annunciation.		High
Conduct use of CPDLC		Can perform timely and correct responses to data link communication failures		High
Conduct use of CPDLC		Can recognize data link communications system failures and data link communication issues		High

		unique to the air carrier or operator.		
Conduct use of CPDLC			Can appreciate appropriate interaction with the Air Traffic Service Unit (ATSU) following data link communication messages that are not acceptable	High
Conduct use of CPDLC			Can apply Crew Resource Management (CRM) of independent message verification, discussion, and action	High
Understand Avionics and communications - ADS – Contract (ADS-C)	Can describe the operation of the airplane systems and components using correct terminology			High
Understand Avionics and communications - ADS – Contract (ADS-C)	Can explain system or component limitations			High
Understand Avionics and communications - ADS – Contract (ADS-C)	Can explain all notes cautions or warnings listed in the OEM manuals & OEM manuals			High
Understand Avionics and communications - ADS –	Can explain immediate action items or memory			High

Contract (ADS-C)	items, if appropriate			
Understand Avionics and communications - ADS – Contract (ADS-C)	Can use the appropriate checklists and ABNORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem, or device			High
Understand Avionics and communications - ADS – Contract (ADS-C)	Can use the appropriate checklists and NORMAL procedures to demonstrate or describe the proper use of the airplane system, subsystem or device			High
Understand Avionics and communications - ADS – Contract (ADS-C)			Can identify, assess, and manage risks encompassing failure to detect system malfunctions or failures.	High
Understand Avionics and communications - ADS –			Can identify, assess, and manage risks encompassing failure to	High

Contract (ADS-C)			follow appropriate checklists or procedures	
Understand Avionics and communications - ADS – Contract (ADS-C)			Can identify, assess, and manage risks encompassing improper management of a system failure	High
Understand Avionics and communications - ADS – Contract (ADS-C)			Can identify, assess, and manage risks encompassing failure to monitor and manage automated systems.	High
Understand Avionics and communications - CPDLC	Can explain AFM and AFM Supplement limitations			High
Understand Avionics and communications - ADS – Contract (ADS-C)	Can apply the use of a Minimum Equipment List (MEL) and a Configuration Deviation List (CDL) to document inoperative components of this system and explain related procedures			High

Appendix E – Differences Courses Learning Objectives

G-V Standardized Curriculum
Differences Training Learning Objectives

Table of Contents

Differences Course Overviews

Differences GIV-X to GV-SP					
Day 1	**Planned Hours**	**Ground**		**Systems Integration**	
		Initial	Recurrent	Initial	Recurrent
Differences: Aircraft General	All systems will be covered.	1.5	0.5	0.5	0.5
Differences: Avionics and Communications					
Differences: Flight Controls					
Differences: Fuel System					
Differences: Hydraulic System					
Differences: Ice Protection					
Differences: Landing Gear and Brakes					
Differences: Auxiliary Power Unit					
Differences: Powerplant					
Differences: Thrust Reverse					
Differences: Flight Profiles and Maneuvers					

Differences GV-SP to GIV-X					
Day 1	**Planned Hours**	**Ground**		**Systems Integration**	
		Initial	Recurrent	Initial	Recurrent
Differences: Aircraft General	All systems will be covered.	2.0	1.0	0.0	0.0
Differences: Avionics and Communications					
Differences: Flight Controls					
Differences: Fuel System					
Differences: Hydraulic System					
Differences: Ice Protection					
Differences: Landing Gear and Brakes					
Differences: Auxiliary Power Unit					
Differences: Powerplant					
Differences: Thrust Reverse					

Differences GIV-X to GV					
Day 1	**Planned Hours**	**Ground**		**Systems Integration**	
		Initial	Recurrent	Initial	Recurrent

Differences: Aircraft General	All systems will be covered.	2.0	1.0	2.0	1.0
Differences: Pneumatic and Environmental Systems					
Differences: Avionics and Communications					
Differences: Electrical System					
Differences: Flight Controls					
Differences: Fuel System					
Differences: Hydraulic System					
Differences: Ice Protection					
Differences: Landing Gear and Brakes					
Differences: Auxiliary Power Unit					
Differences: Powerplant					
Differences: Thrust Reverse					

Differences GV to GIV-X

Day 1	**Planned Hours**	**Ground**		**Systems Integration**	
		Initial	Recurrent	Initial	Recurrent
Differences: Aircraft General	All systems will be covered.	3.0	1.5	3.0	1.5
Differences: Pneumatic and Environmental Systems					
Differences: Avionics and Communications					
Differences: Electrical System					
Differences: Flight Controls					
Differences: Fuel System					
Differences: Hydraulic System					
Differences: Ice Protection					
Differences: Auxiliary Power Unit					
Differences: Powerplant					

Differences GV to GV-SP

Day 1	**Planned Hours**	**Ground**		**Systems Integration**	
		Initial	Recurrent	Initial	Recurrent
Differences: Aircraft General	All systems will be covered.	3.0	1.5	3.0	1.5
Differences: Pneumatic and Environmental Systems					
Differences: Avionics and Communications					
Differences: Electrical System					
Differences: Flight Controls					

Differences: Auxiliary Power Unit					
Differences: Powerplant					
Differences: Flight Profiles and Maneuvers					

Differences GV-SP to GV					
Day 1	**Planned Hours**	**Ground**		**Systems Integration**	
		Initial	Recurrent	Initial	Recurrent
Differences: Aircraft General	All systems will be covered.	2.0	1.0	2.0	1.0
Differences: Avionics and Communications					
Differences: Electrical System					
Differences: Flight Controls					
Differences: Auxiliary Power Unit					
Differences: Powerplant					

Differences Training

Due to differences in instrumentation and installed equipment, the skills and knowledge required to operate a variation(s) of an aircraft type can differ. The range of differences between variations of an aircraft type can be significant due to technological advancements. Flightcrew members trained on one variation of an aircraft type may require additional training to safely and efficiently operate another variation(s) of that aircraft type.

In accordance with 14 CFR part 135 subpart H, differences training is required if a flightcrew member will serve on a variation(s) of a particular aircraft type that has pertinent differences from the base aircraft type. The base aircraft type and the variation(s) must have the same type certificate (TC). Related aircraft differences training applies to aircraft with different TCs that have been designated as related by the Administrator.

The differences training programs outlined below are based on the Flight Standardization Board's Master Differences Requirements (MDR) and Differences Tables. These tables address Levels A, B, and C differences.

Level A differences are those differences of which the flightcrew member needs to be aware, but which have little effect on systems operations. For example, an engine starter on one variation has different time limits but does not have differences in controls, indicators, function, or procedures. Self-instruction methods, such as highlighted pages of operating manuals or training bulletins, are acceptable for these differences. For Level A differences, checking is not required.

Level B differences are those differences in systems, controls, and indicators that have only minor procedural differences. Level B differences are of great enough degree to require formal training in general operational subjects, aircraft systems, or both, but are not of great enough degree to require systems integration training. An example of a Level B difference is a fuel system with additional fuel tanks, pumps, and gauges. Procedural differences are limited to the operation of transfer valves and pumps while an aircraft is in cruise flight. Appropriate instructional methods for Level B differences include, but are not limited to, audiovisual presentations, lectures, and tutorial computer-based instruction (TCBI). A task or systems check for Level B differences must be conducted after training. Appropriate methods include an oral or written exam or TCBI self-test.

Level C differences are part task differences of flightcrew member knowledge, skills, and/or abilities. Level C differences are those differences of great enough degree to require a systems integration training module but that are not of great enough degree to require actual flight training (see Volume 3, Chapter 19, Section 5 for a definition and description of systems integration training). An example of a Level C difference is the installation of a flight management system (FMS) computer. Appropriate training methods in the systems integration module are dedicated part task trainers, interactive computer-based instruction (ICBI), or Level 4 or higher flight simulation training devices (FSTD). Level C differences require a check following training. Appropriate devices are the same as for Level C training. Checking methods appropriate to Level C differences are demonstrations of skill in the procedures affected by the difference. In the case of the installation of an FMS computer, checking might consist of preflight programming of the computer and a demonstration of its use in navigation, climbs, and descents.

Differences GIV-X to GV-SP

Ground School Learning Objectives

Differences GIV-X to GV-SP	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Differences: Aircraft General	Understand Differences GIV-X to GV-SP - Limitations	Can explain the maximum takeoff weight (MTOW) increased to 91,000 lb from 73,900 lb. MLW increased to 75,300 lb from 66,000 lb. Fuel quantity 41,300 lb vs. 29,500 lb. APU and Engine limitations differences.
Differences: Aircraft General	Understand Differences GIV-X to GV-SP - Aircraft General	Can explain MTOW 91,000 lb. Increase of 17,100 lb.
Differences: Auxiliary Power Unit	Understand Differences GIV-X to GV-SP - Airborne Auxiliary Power	Can explain the different APU installed, RE220 vs. 36-150, both supplied by Honeywell.
Differences: Auxiliary Power Unit	Understand Differences GIV-X to GV-SP - Airborne Auxiliary Power	Can explain bleeds off takeoff capability added.
Differences: Auxiliary Power Unit	Understand Differences GIV-X to GV-SP - Airborne Auxiliary Power	Can explain the starter-assisted airstart capability for main engines.
Differences: Auxiliary Power Unit	Understand Differences GIV-X to GV-SP - Airborne Auxiliary Power	Can explain the bleeds off takeoff capability added.
Differences: Avionics and Communications	Understand Differences GIV-X to GV-SP - Communications	Can explain the Selective Call (SELCAL) Test and

		CVR Test switches relocated.
Differences: Avionics and Communications	Understand Differences GIV-X to GV-SP - Communications	Can explain the SELCAL and CVR test switches different test methodology.
Differences: Flight Controls	Understand Differences GIV-X to GV-SP - Flight Controls	Can explain the split flight controls added.
Differences: Flight Controls	Understand Differences GIV-X to GV-SP - Flight Controls	Can explain trailing edge contours added to inboard trailing edge of flaps.
Differences: Flight Controls	Understand Differences GIV-X to GV-SP - Flight Controls	Can explain no Alternate Flap Switch.
Differences: Flight Controls	Understand Differences GIV-X to GV-SP - Flight Controls	Can explain standby rudder and nosewheel steering on auxiliary (AUX) pump capability.
Differences: Flight Controls	Understand Differences GIV-X to GV-SP - Flight Controls	Can explain the Spoiler Control switch added. Can explain the Lateral Control Switch deleted.
Differences: Flight Controls	Understand Differences GIV-X to GV-SP - Flight Controls	Can explain the vortex generators added to lower horizontal stabilizer surfaces and upper elevator surfaces.
Differences: Flight Profiles and Maneuvers	Understand Differences GIV-X to GV-SP - Normal Takeoff	Can explain a Bleeds Off normal takeoff.
Differences: Fuel System	Understand Differences GIV-X to GV-SP - Fuel	Can explain Heated Fuel Return System.

Differences: Hydraulic System	Understand Differences GIV-X to GV-SP - Hydraulic Power	Can explain AUX Hydraulic Boost Pump added.
Differences: Ice Protection	Understand Differences GIV-X to GV-SP - Ice and Rain Protection	Can explain Pitot Probe Heat System changed.
Differences: Landing Gear and Brakes	Understand Differences GIV-X to GV-SP - Landing Gear	Can explain four brake wear indicator pins vs. two and weight on wheels (WOW) switches.
Differences: Powerplant	Understand Differences GIV-X to GV-SP - Powerplant	Can explain thrust increased by 1,535 lb to 15,385 lb.
Differences: Powerplant	Understand Differences GIV-X to GV-SP - Powerplant	Can explain the BR710 installed vs. the Tay 611-8C.
Differences: Thrust Reverse	Differences: Thrust Reverse	Can explain the thrust Reverser Manual Stow switches (two) installed.

Systems Integration Training Learning Objectives

Differences GIV-X to GV-SP	**Tasks**	**Knowledge & Cognitive Learning Objectives**	**Differences GIV-X to GV-SP SIT**
Differences: Flight Controls	Understand Differences GIV-X to GV-SP - Flight Controls	Can explain the split flight controls added.	High

Qualification Segment

Differences GIV-X to GV-SP	**135.293(a)(2) Differences GIV-X to GV-SP**	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Differences: Flight Controls	Differences Level B	Understand Differences GIV-X to	Can explain the Spoiler Control

		GV-SP - Flight Controls	switch added. Can explain the Lateral Control Switch deleted.

Differences GV-SP to GIV-X

Ground School Learning Objectives

Differences GV-SP to GIV-X	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Differences: Aircraft General	Understand Differences GV-SP to GIV-X - Limitations	Can explain the MTOW decreased by 17,100 lb to 73,900 lb. MLW decreased to 66,000 lb. Fuel quantity 29,500 lb vs. 41,300 lb. APU and engine limitations differences.
Differences: Aircraft General	Understand Differences GV-SP to GIV-X - Aircraft General Performance	Can explain the MTOW 17,100 lb decrease to 73,900 lb.
Differences: Auxiliary Power Unit	Understand Differences GV-SP to GIV-X - Airborne Auxiliary Power	Can explain the different APU installed, RE220 vs. 36-150, both supplied by Honeywell.
Differences: Auxiliary Power Unit	Understand Differences GV-SP to GIV-X - Airborne Auxiliary Power	Can explain no Bleeds Off takeoff capability.
Differences: Avionics and Communications	Understand Differences GV-SP to GIV-X - Communications	Can explain the SELCAL Test and CVR Test switches relocated.
Differences: Avionics and Communications	Understand Differences GV-SP to GIV-X - Communications	Can explain the SELCAL and CVR test switches different test methodology.
Differences: Flight Controls	Understand Differences GV-SP to GIV-X - Flight Controls	Can explain the Lateral Control switch added. Can explain the Spoiler Control Switch deleted.
Differences: Flight Controls	Understand Differences GV-SP to GIV-X - Flight Controls	Can explain the Alternate Flap Control switch added.

Differences: Flight Controls	Understand Differences GV-SP to GIV-X - Flight Controls	Can explain no split flight controls.
Differences: Flight Controls	Understand Differences GV-SP to GIV-X - Flight Controls	Can explain trailing edge contours not installed.
Differences: Flight Controls	Understand Differences GV-SP to GIV-X - Flight Controls	Can explain no standby rudder and no nosewheel steering on AUX pump capability.
Differences: Flight Controls	Understand Differences GV-SP to GIV-X - Flight Controls	Can explain the vortex generators deleted from lower horizontal stabilizer surfaces and upper elevator surfaces.
Differences: Fuel System	Understand Differences GV-SP to GIV-X - Fuel	Can explain no Heated Fuel Return System installed.
Differences: Hydraulic System	Understand Differences GV-SP to GIV-X - Hydraulic Power	Can explain the AUX Hydraulic Boost Pump deleted.
Differences: Ice Protection	Understand Differences GV-SP to GIV-X - Ice and Rain Protection	Can explain the Pitot Probe Heat System changed.
Differences: Landing Gear and Brakes	Understand Differences GV-SP to GIV-X - Landing Gear	Can explain two brake wear indicator pins vs. Four.
Differences: Powerplant	Understand Differences GV-SP to GIV-X - Powerplant	Can explain the thrust decreased 1,535 lb to 13,850 lb.
Differences: Powerplant	Understand Differences GV-SP to GIV-X - Powerplant	Can explain the Tay 611-8C installed vs. the BR710.
Differences: Thrust Reverse	Understand Differences GV-SP to GIV-X - Engine Exhaust	Can explain no Manual Thrust Reverser Stow switches installed.

Systems Integration Training Learning Objectives

None.

Qualification Segment

None.

Differences GIV-X to GV

Ground School Learning Objectives

Differences GIV-X to GV	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Differences: Aircraft General	Understand Differences GIV-X to GV - Limitations	Can explain the MTOW increased to 90,500 lb from 73,900 lb.
Differences: Aircraft General	Understand Differences GIV-X to GV - Aircraft General	Can explain the MTOW 90,500 lb. Increase of 16,600 lb.
Differences: Aircraft General	Understand Differences GIV-X to GV - Aircraft General	Can explain the observer seat and location changed.
Differences: Aircraft General	Understand Differences GIV-X to GV -Doors	Can explain the Main Door moved aft 24 in.
Differences: Aircraft General	Understand Differences GIV-X to GV -Doors	Can explain the Aft Lavatory Dump Door relocated.
Differences: Auxiliary Power Unit	Understand Differences GIV-X to GV - Airborne Auxiliary Power	Can explain the different APU installed with capability for APU-assisted main engine airstart and different electrical load capabilities.
Differences: Avionics and Communications	Understand Differences GIV-X to GV - Autoflight	Can explain the TOGA Flight Director Command Bars initiate at 12° vs. 8° on GIV-X.
Differences: Avionics and Communications	Understand Differences GIV-X to GV - Communications	Can explain the New Audio System.
Differences: Avionics and Communications	Understand Differences GIV-X to GV - Communications	Can explain the Radio Tuning Through Radio Frequency Management Unit (RFMU).
Differences: Avionics and Communications	Understand Differences GIV-X to GV - Indicating/Recording Systems	Can explain the Standby Engine Instrument on RFMU.
Differences: Avionics and Communications	Understand Differences GIV-X to GV - Indicating/Recording Systems	Can explain the Data Acquisition Unit (DAU) and Fault Warning Computer (FWC) replaces Modular Avionics Unit (MAU).

Differences: Avionics and Communications	Understand Differences GIV-X to GV - Indicating/Recording Systems	Can explain DC.
Differences: Avionics and Communications	Understand Differences GIV-X to GV - Indicating/Recording Systems	Can explain the Electronic Checklist Auto Pop-up Feature enabled.
Differences: Avionics and Communications	Understand Differences GIV-X to GV- Navigation	Can explain the Inertial Reference System (IRS) ON/OFF switches removed and replaced with Mode Select Unit switches.
Differences: Avionics and Communications	Understand Differences GIV-X to GV- Navigation	Can explain the EICAS FMS Joystick Panel.
Differences: Avionics and Communications	Understand Differences GIV-X to GV- Navigation	Can explain the Six DUs vs. four DUs.
Differences: Avionics and Communications	Understand Differences GIV-X to GV- Navigation	Can explain no CCDs Used in Conjunction with Displays.
Differences: Avionics and Communications	Understand Differences GIV-X to GV- Navigation	Can explain the Horizontal Situation Indicator (HSI) on RFMU.
Differences: Avionics and Communications	Understand Differences GIV-X to GV- Navigation	Can explain LaserTrack.
Differences: Avionics and Communications	Understand Differences GIV-X to GV- Navigation	Can explain the Standby Flight instruments have different design and location.
Differences: Electrical System	Understand Differences GIV-X to GV - Electrical Power	Can explain the revised location of Power Distribution Box (PDB) circuit breaker panels.
Differences: Flight Controls	Understand Differences GIV-X to GV - Flight Controls	Can explain the split flight controls added.
Differences: Flight Controls	Understand Differences GIV-X to GV - Flight Controls	Can explain no Alternate Flap Switch.
Differences: Flight Controls	Understand Differences GIV-X to GV - Flight Controls	Can explain no Standby Rudder installed with nosewheel steering on the AUX pump capability (including AUX PUMP ground spoiler pressure).
Differences: Flight Controls	Understand Differences GIV-X to GV - Flight Controls	Can explain Spoiler Control Switch added. Can explain Lateral Control Switch deleted.

Differences: Flight Controls	Understand Differences GIV-X to GV - Flight Controls	Can explain the vortex generators added to lower horizontal stabilizer surfaces and upper elevator surfaces.
Differences: Fuel System	Understand Differences GIV-X to GV - Fuel	Can explain the Heated Fuel Return System added.
Differences: Hydraulic System	Understand Differences GIV-X to GV - Hydraulic Power	Can explain the AUX Hydraulic Boost Pump added.
Differences: Ice Protection	Understand Differences GIV-X to GV - Ice and Rain Protection	Can explain the Pitot Probe Heat System changed.
Differences: Landing Gear and Brakes	Understand Differences GIV-X to GV - Landing Gear	Can explain the four brake wear indicator pins vs. two and WOW switches.
Differences: Pneumatic and Environmental Systems	Understand Differences GIV-X to GV - Air Conditioning	Can explain the Environmental Control System Outflow valve changed to butterfly valve.
Differences: Powerplant	Understand Differences GIV-X to GV - Powerplant	Can explain the thrust increased by 900 lb to 14,750 lb.
Differences: Powerplant	Understand Differences GIV-X to GV - Powerplant	Can explain the BR710 vs. the Tay 611-8C Installed.
Differences: Thrust Reverse	Understand Differences GIV-X to GV - Engine Exhaust	Can explain the two Thrust Reverser Manual Stow Switches installed.

Systems Integration Training Learning Objectives

Differences GIV-X to GV	**Tasks**	**Knowledge & Cognitive Learning Objectives**	**Differences GIV-X to GV SIT**
Differences: Auxiliary Power Unit	Understand Differences GIV-X to GV - Airborne Auxiliary Power	Can explain the different APU installed with capability for APU-assisted main engine airstart and different electrical load capabilities.	High
Differences: Avionics and Communications	Understand Differences GIV-X to GV - Autoflight	Can explain the TOGA Flight Director Command	High

		Bars initiate at 12° vs. 8° on GIV-X.	
Differences: Avionics and Communications	Understand Differences GIV-X to GV - Communications	Can explain the Radio Tuning Through Radio Frequency Management Unit (RFMU).	High
Differences: Avionics and Communications	Understand Differences GIV-X to GV- Navigation	Can explain LaserTrack.	High
Differences: Flight Controls	Understand Differences GIV-X to GV - Flight Controls	Can explain no Standby Rudder installed with nosewheel steering on the AUX pump capability (including AUX PUMP ground spoiler pressure).	High
Differences: Flight Controls	Understand Differences GIV-X to GV - Flight Controls	Can explain Spoiler Control Switch added. Can explain Lateral Control Switch deleted.	High
Differences: Fuel System	Understand Differences GIV-X to GV - Fuel	Can explain the Heated Fuel Return System added.	High

Qualification Segment

None.

Differences GV to GIV-X

Ground School Learning Objectives

Differences GV to GIV-X	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Differences: Aircraft General	Understand Differences GV to GIV-X - Limitations	Can explain the MTOW decreased to 73,900 lb from 90,500 lb. Fuel Quantity 29,500 lb vs. 41,300 lb. APU and engine limitations differences.

Differences: Aircraft General	Understand Differences GV to GIV-X - Aircraft General	Can explain the MTOW 73,900 lb. Decrease of 16,600 lb.
Differences: Aircraft General	Understand Differences GV to GIV-X - Aircraft General	Can explain the observer seat and location changed.
Differences: Aircraft General	Understand Differences GV to GIV-X - Doors	Can explain the Main Door moved forward 24 in.
Differences: Aircraft General	Understand Differences GV to GIV-X - Doors	Can explain the Aft Lavatory Dump Door relocated.
Differences: Auxiliary Power Unit	Understand Differences GV to GIV-X - Airborne Auxiliary Power	Can explain the different APU installed with no capability for APU-assisted main engine airstart and different electrical load capabilities.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Autoflight	Can explain the TOGA Flight Director Command Bars initiate at 8° vs. 12° on GV.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Communications	Can explain the New Audio System.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Communications	Can explain the Radio Tuning Through MCDU and graphically.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Communications	Can explain the SELCAL test and CVR test switches relocated.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Indicating/Recording Systems	Can explain the Electronic Checklist Auto Pop-up Feature deleted.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Indicating/Recording Systems	Can explain the Standby Engine Instruments on MCDU.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Indicating/Recording Systems	Can explain the DAU and FWC replaced by MAU.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Indicating/Recording Systems	Can explain the DC.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Navigation	Can explain the IRS Mode Select Unit switches removed and replaced with ON/OFF switches.

Differences: Avionics and Communications	Understand Differences GV to GIV-X - Navigation	Can explain the four DUs vs. six DUs.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Navigation	Can explain the added Dual CCDs used in Conjunction with Displays.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Navigation	Can explain the LaserTrack removed.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Navigation	Can explain the Standby Flight instruments have different design and location.
Differences: Avionics and Communications	Understand Differences GV to GIV-X - Navigation	Can explain the MCDU on Emergency Power.
Differences: Electrical System	Understand Differences GV to GIV-X - Electrical Power	Can explain the revised location of PDB circuit breaker panels.
Differences: Flight Controls	Understand Differences GV to GIV-X - Flight Controls	Can explain the Lateral Control switch added. Can explain the Spoiler Control Switch deleted.
Differences: Flight Controls	Understand Differences GV to GIV-X - Flight Controls	Can explain no Standby Rudder installed or nosewheel steering on the AUX pump capability.
Differences: Flight Controls	Understand Differences GV to GIV-X - Flight Controls	Can explain no split flight controls.
Differences: Flight Controls	Understand Differences GV to GIV-X - Flight Controls	Can explain the vortex generators deleted from lower horizontal stabilizer surfaces and upper elevator surfaces.
Differences: Flight Controls	Understand Differences GV to GIV-X - Flight Controls	Can explain the Alternate Flap Switch added.
Differences: Fuel System	Understand Differences GV to GIV-X - Fuel	Can explain no Heated Fuel Return System.
Differences: Hydraulic System	Understand Differences GV to GIV-X- Hydraulic Power	Can explain no AUX Hydraulic Boost Pump.
Differences: Ice Protection	Understand Differences GV to GIV-X - Ice and Rain Protection	Can explain the Pitot Probe Heat System changed.
Differences: Pneumatic and Environmental Systems	Understand Differences GV to GIV-X - Air Conditioning	Can explain the Environmental Control System Outflow valve changed to thrust recovery outflow valve.

Differences: Powerplant	Understand Differences GV to GIV-X - Powerplant	Can explain the thrust decreased by 900 lb to 13,850 lb.

Systems Integration Training Learning Objectives

Differences GV to GIV-X	**Tasks**	**Knowledge & Cognitive Learning Objectives**	**Differences GV to GIV-X SIT**
Differences: Auxiliary Power Unit	Understand Differences GV to GIV-X - Airborne Auxiliary Power	Can explain the different APU installed with no capability for APU-assisted main engine airstart and different electrical load capabilities.	High
Differences: Electrical System	Understand Differences GV to GIV-X - Electrical Power	Can explain the revised location of PDB circuit breaker panels.	High
Differences: Flight Controls	Understand Differences GV to GIV-X - Flight Controls	Can explain no Standby Rudder installed or nosewheel steering on the AUX pump capability.	High
Differences: Flight Controls	Understand Differences GV to GIV-X - Flight Controls	Can explain no split flight controls.	High

Qualification Segment

Differences GV to GIV-X	**135.293(a)(2) Differences GV to GIV-X**	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Differences: Avionics and Communications	Differences Level B	Understand Differences GV to GIV-X - Communications	Can explain the SELCAL test and CVR test switches relocated.

Differences: Flight Controls	Differences Level B	Understand Differences GV to GIV-X - Flight Controls	Can explain no Standby Rudder installed or nosewheel steering on the AUX pump capability.
Differences: Flight Controls	Differences Level B	Understand Differences GV to GIV-X - Flight Controls	Can explain no split flight controls.
Differences: Fuel System	Differences Level B	Understand Differences GV to GIV-X - Fuel	Can explain no Heated Fuel Return System.

Differences GV to GV-SP

Ground School Learning Objectives

Differences GV to GV-SP	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Differences: Aircraft General	Understand Differences GV to GV-SP - Limitations Systems	Can explain the MTOW increased to 91,000 lb from 90,500 lb.
Differences: Aircraft General	Understand Differences GV to GV-SP - Aircraft General Systems	Can explain the MTOW 91,000 lb. Increase of 500 lb.
Differences: Aircraft General	Understand Differences GV to GV-SP - Equipment/Furnishings	Can explain the redesign and relocation of cockpit observer’s seat to behind Co-Pilot’s seat.
Differences: Aircraft General	Understand Differences GV to GV-SP -Water/Waste	Can explain the fuselage conformal fresh water tank.
Differences: Aircraft General	Understand Differences GV to GV-SP -Water/Waste	Can explain the relocation of vacuum lavatory waste tank from baggage compartment to above APU.
Differences: Aircraft General	Understand Differences GV to GV-SP - Doors	Can explain the Main Door moved forward 24 in.
Differences: Aircraft General	Understand Differences GV to GV-SP - Doors	Can explain Aft Lavatory Dump Door relocated.

Differences: Aircraft General	Understand Differences GV to GV-SP - Fuselage	Can explain the 27 Boundary Layer Energizers added above the canopy.
Differences: Aircraft General	Understand Differences GV to GV-SP - Windows	Can explain the addition of 7th cabin window.
Differences: Aircraft General	Understand Differences GV to GV-SP - Wings	Can explain the seven Vortex Generators relocated outboard on each wing.
Differences: Auxiliary Power Unit	Understand Differences GV to GV-SP - Airborne Auxiliary Power	Can explain the bleeds off takeoff capability added.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Autoflight Systems	Can explain the TOGA Flight Director Command Bars initiate at 8° vs. 12° on GV.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Communications	Can explain the New Audio System.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Communications	Can explain the Radio Tuning Through MCDU and graphically.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Indicating/Recording Systems	Can explain the Electronic Checklist Auto Pop-up Feature deleted.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Indicating/Recording Systems	Can explain the DAU and FWC replaced by MAU.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Indicating/Recording Systems	Can explain the Standby Engine Parameters available on No. 1 MCDU only.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Indicating/Recording Systems	Can explain the different formatting on some synoptic displays.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Navigation	Can explain the IRS Mode Select Unit switches removed and replaced with ON/OFF switches.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Navigation	Can explain the four DUs vs. Six DUs with different formatting.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Navigation	Can explain the added Dual CCDs Used in Conjunction with Displays.

Differences: Avionics and Communications	Understand Differences GV to GV-SP - Navigation	Can explain the DCs have different menus.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Navigation	Can explain the Standby Flight instruments have different design and location.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Navigation	Can explain the DU Controller has four overhead switches instead of three.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Navigation	Can explain the RNP and Estimated Position Uncertainty (EPU) is displayed on PFD.
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Navigation	Can explain the MCDU on Emergency Power.
Differences: Electrical System	Understand Differences GV to GV-SP - Electrical Power	Can explain the revised location of PDB circuit breaker panels.
Differences: Flight Controls	Understand Differences GV to GV-SP - Flight Controls	Can explain the trailing edge contours added to inboard trailing edge of flaps.
Differences: Flight Profiles and Maneuvers	Understand Differences GV to GV-SP - Normal Takeoff	Can explain the Bleeds Off normal takeoff.
Differences: Pneumatic and Environmental Systems	Understand Differences GV to GV-SP - Air Conditioning Systems	Can explain the Environmental Control System Outflow valve changed to thrust recovery outflow valve.
Differences: Powerplant	Understand Differences GV to GV-SP - Powerplant	Can explain the thrust increased by 635 lb to 15,385 lb.

Systems Integration Training Learning Objectives

Differences GV to GV-SP	**Tasks**	**Knowledge & Cognitive Learning Objectives**	**Differences GV to GV-SP SIT**
Differences: Aircraft General	Understand Differences GV to GV-SP - Water/Waste	Can explain the relocation of vacuum lavatory waste tank from baggage	High

		compartment to above APU.	
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Indicating/Recording Systems	Can explain the Electronic Checklist Auto Pop-up Feature deleted.	High
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Indicating/Recording Systems	Can explain the DAU and FWC replaced by MAU.	High
Differences: Avionics and Communications	Understand Differences GV to GV-SP - Indicating/Recording Systems	Can explain the Standby Engine Parameters available on No. 1 MCDU only.	High

Qualification Segment

Differences GV to GV-SP	**135.293(a)(2) Differences GV to GV-SP**	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Differences: Avionics and Communications	Differences Level B	Understand Differences GV to GV-SP - Indicating/Recording Systems	Can explain the Electronic Checklist Auto Pop-up Feature deleted.
Differences: Avionics and Communications	Differences Level B	Understand Differences GV to GV-SP - Indicating/Recording Systems	Can explain the DAU and FWC replaced by MAU.
Differences: Avionics and Communications	Differences Level B	Understand Differences GV to GV-SP - Indicating/Recording Systems	Can explain the different formatting on some synoptic displays.
Differences: Avionics and Communications	Differences Level B	Understand Differences GV to GV-SP - Navigation	Can explain the IRS Mode Select Unit switches removed and replaced with ON/OFF switches.

Differences: Avionics and Communications	Differences Level B	Understand Differences GV to GV-SP - Navigation	Can explain the added Dual CCDs Used in Conjunction with Displays.

Differences GV-SP to GV

Ground School Learning Objectives

Differences GV-SP to GV	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Differences: Aircraft General	Understand Differences GV-SP to GV - Limitations	Can explain the MTOW decreased by 500 lb to 90,500 lb.
Differences: Aircraft General	Understand Differences GV-SP to GV - Aircraft General	Can explain the MTOW 500 lb decrease to 90,500 lb.
Differences: Aircraft General	Understand Differences GV-SP to GV - Aircraft General	Can explain the Environmental Control System Outflow valve changed to butterfly style.
Differences: Aircraft General	Understand Differences GV-SP to GV - Equipment/Furnishings	Can explain the redesign and relocation of cockpit observer’s seat to behind Captain’s seat.
Differences: Aircraft General	Understand Differences GV-SP to GV - Water/Waste	Can explain the non-fuselage conformal fresh water tank.
Differences: Aircraft General	Understand Differences GV-SP to GV - Water/Waste	Can explain the relocation of vacuum lavatory waste tank from above APU to baggage compartment.
Differences: Aircraft General	Understand Differences GV-SP to GV - Doors	Can explain the Main Door moved aft 24 in.
Differences: Aircraft General	Understand Differences GV-SP to GV - Doors	Can explain the Aft Lavatory Dump Door relocated.
Differences: Aircraft General	Understand Differences GV-SP to GV - Fuselage	Can explain the 27 Boundary Layer Energizers removed from the canopy.
Differences: Aircraft General	Understand Differences GV-SP to GV - Windows	Can explain the removal of 7th cabin window.

Differences: Aircraft General	Understand Differences GV-SP to GV - Wings	Can explain seven vortex generators relocated inboard on each wing.
Differences: Auxiliary Power Unit	Understand Differences GV-SP to GV - Airborne Auxiliary Power	Can explain no Bleeds Off takeoff capability.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Autoflight	Can explain the TOGA Flight Director Command Bars initiate at 12° vs. 8° on GV-SP.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Communications	Can explain the New audio system.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Communications	Can explain the Radio tuning accomplished through RFMUs.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Indicating/Recording Systems	Can explain the Electronic Checklist has Auto pop-up Feature vs. passive checklist on GV-SP.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Indicating/Recording Systems	Can explain the MAU replaced by DAU and FWC.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Indicating/Recording Systems	Can explain the Engine Parameters available on either RFMU.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Indicating/Recording Systems	Can explain the different formatting on some synoptic displays.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Navigation	Can explain the EICAS FMS Joystick Panel.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Navigation	Can explain the LaserTrack.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Navigation	Can explain the IRS ON/OFF switches replaced with IRS Mode Select Unit switches.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Navigation	Can explain the six DUs vs. four DUs with different formatting.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Navigation	Can explain no CCDs installed.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Navigation	Can explain the DCs have different menus.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Navigation	Can explain the Standby Flight instruments have

		different design and location.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Navigation	Can explain the DU Controller has three overhead switches instead of four.
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Navigation	Can explain the RNP and EPU are not displayed on PFD.
Differences: Electrical System	Understand Differences GV-SP to GV - Electrical Power	Can explain the revised location of PDBs and associated circuit breakers.
Differences: Flight Controls	Understand Differences GV-SP to GV - Flight Controls	Can explain the trailing edge contours not installed.
Differences: Powerplant	Understand Differences GV-SP to GV - Powerplant	Can explain the thrust reduced 635 lb to 14,750 lb.

Systems Integration Training Learning Objectives

Differences GV-SP to GV	**Tasks**	**Knowledge & Cognitive Learning Objectives**	**Differences GV-SP to GV SIT**
Differences: Aircraft General	Understand Differences GV-SP to GV - Water/Waste	Can explain the non-fuselage conformal fresh water tank.	High
Differences: Aircraft General	Understand Differences GV-SP to GV - Water/Waste	Can explain the relocation of vacuum lavatory waste tank from above APU to baggage compartment.	High
Differences: Aircraft General	Understand Differences GV-SP to GV - Wings	Can explain seven vortex generators relocated inboard on each wing.	High
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Communications	Can explain the Radio tuning accomplished through RFMUs.	High
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Indicating/Recording Systems	Can explain the MAU replaced by DAU and FWC.	High

Differences: Avionics and Communications	Understand Differences GV-SP to GV - Indicating/Recording Systems	Can explain the Engine Parameters available on either RFMU.	High
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Indicating/Recording Systems	Can explain the different formatting on some synoptic displays.	High
Differences: Avionics and Communications	Understand Differences GV-SP to GV - Navigation	Can explain the LaserTrack.	High

Qualification Segment

Differences GV-SP to GV	**135.293(a)(2) Differences GV-SP to GV**	**Tasks**	**Knowledge & Cognitive Learning Objectives**
Differences: Aircraft General	Differences Level B	Understand Differences GV-SP to GV - Wings	Can explain seven vortex generators relocated inboard on each wing.
Differences: Avionics and Communications	Differences Level B	Understand Differences GV-SP to GV - Communications	Can explain the Radio tuning accomplished through RFMUs.
Differences: Avionics and Communications	Differences Level B	Understand Differences GV-SP to GV - Indicating/Recording Systems	Can explain the MAU replaced by DAU and FWC.
Differences: Avionics and Communications	Differences Level B	Understand Differences GV-SP to GV - Indicating/Recording Systems	Can explain the Engine Parameters available on either RFMU.
Differences: Avionics and Communications	Differences Level B	Understand Differences GV-SP to GV - Indicating/Recording Systems	Can explain the different formatting on some synoptic displays.
Differences: Avionics and Communications	Differences Level B	Understand Differences GV-SP to GV - Navigation	Can explain the LaserTrack.
Differences: Avionics and Communications	Differences Level B	Understand Differences GV-SP to GV - Navigation	Can explain the IRS ON/OFF switches replaced with IRS Mode

			Select Unit switches.

Appendix F – ACT ARC Recommendation 16-1