



U.S. Department of Transportation  
Federal Aviation Administration  
Washington, DC

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## Flight Standardization Board Report

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Revision: 6  
Date: XX/XX/XXXX

### Manufacturer Bombardier, Inc.

Type Certificate Data Sheet (TCDS)	TCDS Identifier	Marketing Name	Pilot Type Rating
T00003NY	BD-700-2A12	Global 7500	G7500
T00003NY	BD-700-2A12	Global 8000	G7500

**Approved by the Aircraft Evaluation Division**

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## 1. RECORD OF REVISIONS

Revision Number	Section(s)	Date
Original	All	04/09/2019
1	3, 4, Appendix 4	02/10/2021
2	1, 3, 4, 5, 8, 9, 13, Appendix 4, Appendix 5	06/22/2022
3	3, 4, 5, 9, 10, 12, Appendix 5	05/24/2023
4	1, 3, 4, 5, 9, Appendix 6, Appendix 7	09/28/2023
5	1, 3, 4, 5, 7, 9, 10, 13, Appendices 5, 6, 7, 8	03/14/2024
6	1, 2, 3, 4, 5, 6, 9, 12, Appendices 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	XX/XX/XXXX

## 2. INTRODUCTION

The Aircraft Evaluation Division (AED) is responsible for working with aircraft manufacturers and modifiers, during the development and Federal Aviation Administration (FAA) certification of new and modified aircraft to determine:

- 1) The pilot type rating,
- 2) Flightcrew member training, checking, and currency requirements, and
- 3) Operational suitability.

This report lists those determinations for use by:

- 1) FAA employees who approve training programs,
- 2) FAA employees and designees who certify airmen, and
- 3) Aircraft operators and training providers, to assist them in developing their flightcrew member training, checking, and currency.

## 3. HIGHLIGHTS OF CHANGE

This revision adds Appendix 9, Software Version 2.2 to 2.5 Upgrade, which incorporates software upgrades and fixes, Appendix 10, Global 8000 Upgrade, and Appendix 11, Runway Overrun Awareness and Alerting System (ROAAS).

## 4. BACKGROUND

The Transport Aircraft Long Beach AEG formed a Flight Standardization Board (FSB), which evaluated the BD-700-2A12 as defined in FAA Type Certificate Data Sheet (TCDS) No. T00003NY (BD-700-2A12). The evaluation was conducted from October 10 to December 7, 2018, using the methods described in FAA Advisory Circular (AC) 120-53B, Guidance for Conducting and Use of Flight Standardization Board Evaluations.

**NOTE:** The BD-700-2A12 (Global 7500) aircraft is a derivative of the original BD-700-1A10 (Global Express) aircraft certified in 1999 and is included in the same TCDS.

The Global 7500 features fly-by-wire (FBW), which interfaces with dual active control sidesticks. The aircraft is powered by two GE Passport 20-19BB1A turbofan engines capable of producing 18,920 lb of thrust at sea level with temperatures up to 30 °C. The Bombardier Global 7500 flight deck incorporates a Rockwell Collins Pro Line Fusion integrated avionics system suite consisting of four large adaptive display units (DU). The avionics system capabilities include:

- Electronic checklist (ECL).
- Integrated Flight Information System (IFIS).
- Synthetic Vision System (SVS).
- Enhanced Vision System (EVS) - not evaluated.
- Two-dimensional (2D) airport moving map (AMM).
- Multi-scan Weather Radar.
- Predictive (optional) and reactive wind shear detection.
- Graphical flight planning.
- FBW side stick controllers.
- Head-Up Display (HUD) (dual HUD optional). The HUD can be overlaid with images from the EVS or SVS. This new system is referred to as a combined vision system (CVS).
- Controller-Pilot Data Link Communications (CPDLC).

The Global 7500 is certified for a maximum of 22 occupants (including the crew and no more than 19 passengers). Maximum takeoff weight (MTOW) (certified) for the Global 7500 is 114,850 lb.

In October 2019, a FAA Bombardier Global 7500 FSB formed to evaluate the CPDLC functionality update incorporated into the Pro Line Fusion avionics suite. Due to the standardization of the CPDLC functionality and ease of validating it, the FAA FSB decided to accomplish their review through the analysis of data provided by Transport Canada Civil Aviation (TCCA) whom attended the training in person. The FAA FSB extensively reviewed and analyzed TCCA's operational suitability data report. Through analysis, the FAA FSB found the CPDLC to be operationally suitable. Training checking and currency requirements are listed in Appendix 4, Rockwell Collins Pro Line Fusion Future Air Navigation System (FANS) 1/A+ Corporate Data Link Communications System (CMU-4000/RIU-40X0) Controller Pilot Data Link Communications (CPDLC).

January through February 2022, a FAA Bombardier Global 7500 FSB formed to evaluate the Collins Aerospace EVS-3600 EFVS ground and full flight simulator (FFS) training. The FAA FSB found EFVS to be operationally suitable. Training checking and currency requirements are listed in Appendix 5, Enhanced Flight Vision System (EFVS) Operations.

The Transport Aircraft Long Beach AEG was designated the Corporate Aviation Branch as a part of a reorganization of the AED.

In April 2023, an FAA Bombardier Global 7500 FSB formed to evaluate the Level 4 flight training device (FTD) which is being downgraded from a Level 6 FTD for the systems integration training. The CAE training center located in Montreal, Quebec, Canada utilized a

CAE Infinity 400XR and identified training items that are required to be trained in a Level 6 FTD or higher level device. The FAA FSB found the Level 4 FTD to be operationally suitable for the training items that are not required to be trained in a Level 6 FTD or higher.

In June 2023, an FAA Bombardier Global 7500 FSB formed to evaluate Required Navigation Performance Authorization Required (RNP AR) and Steep approach operations. The FAA FSB found RNP AR and Steep approach operations to be operationally suitable. Training checking and currency requirements are listed in Appendix 6, Required Navigation Performance (RNP) Authorization Required (AR) and Appendix 7, Steep Approach Operations.

In October 2023, an FAA Bombardier Global 7500 FSB formed to evaluate CAT II approach operations. The FAA FSB found CAT II approach operations to be operationally suitable. Training checking and currency requirements are listed in Appendix 8, CAT II Approach Operations.

In January 2026, an FAA Bombardier Global 7500 FSB formed to evaluate the Global 8000. The FAA FSB found the software upgrade from version 2.2 to version 2.5, the Global 8000 Upgrade, and ROAAS to be operationally suitable. Training, Checking, and currency requirements are listed in Appendix 9, Software Version 2.2 to Version 2.5 Upgrade, Appendix 10, Global 8000 Upgrade, and Appendix 11, Runway Overrun Awareness and Alerting System (ROAAS).

## 5. ACRONYMS

- 14 CFR Title 14 of the Code of Federal Regulations
- 2D Two-Dimensional
- ABS Automatic Braking System
- AC Advisory Circular
- ACFT Aircraft
- ACS Airman Certification Standards
- ADS Air Data System
- ADS-C Automatic Dependent Surveillance-Contract
- AED Aircraft Evaluation Division
- AEG Aircraft Evaluation Group
- AEO All-Engines-Operating
- AFCS Automatic Flight Control System
- AFMS Airplane Flight Manual Supplement
- AFN Aircraft Facilities Notification
- AMM Airport Moving Map
- APU Auxiliary Power Unit
- AR Authorization Required
- AT Autothrottle
- ATC Air Traffic Control
- ATN B1 Aeronautical Telecommunications Network Baseline 1
- ATP Airline Transport Pilot

- ATS Air Traffic Services
- AV Audiovisual Presentation
- AWO All Weather Operations
- BAL Balance
- BTMS Brake Temperature Monitoring System
- CAS Crew Alerting System
- CAT II Category 2 Operations
- CG Center of Gravity
- CIFP Computerized In-Flight Performance
- CNS Communications, Navigation, and Surveillance
- CPDLC Controller-Pilot Data Link Communications
- CPT Cockpit Procedures Trainers
- CRM Crew Resource Management
- CRZ Cruise
- CTP Control Tuning Panel
- CVS Combined Vision System
- DA Decision Altitude
- DH Decision Height
- DU Display Unit
- EASA European Union Aviation Safety Agency
- ECL Electronic Checklist
- ECS Environmental Control System
- EDM Emergency Descent Mode
- EFIS Electronic Flight Instrument System
- EFVS Enhanced Flight Vision System
- EFVS-A Enhanced Flight Vision System – Approach
- EFVS-L Enhanced Flight Vision System – Landing
- EFVS-TD Enhanced Flight Vision System Operations to Touch Down and Rollout
- EFVS-100 Enhanced Flight Vision System Operations to 100 feet height above Touchdown Zone Elevation
- EGPWS Enhanced Ground Proximity Warning System
- EVS Enhanced Vision System
- FAA Federal Aviation Administration
- FADEC Full-Authority Digital Engine Control
- FANS Future Air Navigation System
- FBW Fly-By-Wire
- FCOM Flightcrew Operating Manual
- FCP Flight Control Panel
- FD Flight Director
- FFS Full Flight Simulator
- FGS Flight Guidance System
- FMA Flight Mode Annunciator
- FMS Flight Management System
- FPLN Flight Plan

•	FPV	Flight Path Vector
•	FQMC	Fuel Quantity and Management Computer
•	FSB	Flight Standardization Board
•	FSTD	Flight Simulation Training Device
•	FTD	Flight Training Device
•	HAT	Height Above Touchdown
•	HF	High Frequency
•	HO	Handout
•	HUD	Head-Up Display
•	HDD	Head-Down Display
•	ICBI	Interactive Computer-Based Instruction
•	IFIS	Integrated Flight Information System
•	ITT	Interstage Turbine Temperature
•	JOEB	Joint Operational Evaluation Board
•	LOC	Localizer
•	LOC BC	Localizer Back Course
•	LNAV	Lateral Navigation
•	LPV	Localizer Performance with Vertical Guidance
•	LRC	Long Range Cruise
•	MDR	Master Differences Requirements
•	MEL	Minimum Equipment List
•	MFF	Mixed Fleet Flying
•	MFS	Multi-Function Spoilers
•	MFW	Multifunction Window
•	MGMT	Management
•	M <sub>MO</sub>	Maximum Mach Number
•	MTOW	Maximum Takeoff Weight
•	NAS	National Airspace System
•	NO-RA	No Radio Altimeter
•	NWS	Nosewheel Steering
•	OEI	One-Engine-Inoperative
•	Part 91K	Part 91 Subpart K
•	PF	Pilot Flying
•	PFD	Primary Flight Display
•	PM	Pilot Monitoring
•	PIC	Pilot in Command
•	psid	Pounds per Square Inch Differential
•	PTT	Part Task Trainers
•	QRH	Quick Reference Handbook
•	RA	Resolution Advisory
•	RCC	Runway Condition Code
•	RF	Radius to Fix
•	RNP	Required Navigation Performance
•	RNP AR	Required Navigation Performance Authorization Required

- ROAAS Runway Overrun Awareness and Alerting System
- RPTS Reports
- RTO Rejected Takeoff
- RVR Runway Visual Ranges
- RVSM Reduced Vertical Separation Minimum
- SA Situational Awareness
- SB Service Bulletin
- SIC Second in Command
- SMGCS Surface Movement Guidance and Control Systems
- SMS Surface Management System
- S/N Serial Number
- SPD Speed
- STC Supplemental Type Certificate
- SU Stand-Up Instruction
- SVS Synthetic Vision System
- TC Type Certificate
- TCAS Traffic Alert and Collision Avoidance System
- TCBI Tutorial Computer-Based Instruction
- TCCA Transport Canada Civil Aviation
- TCDS Type Certificate Data Sheet
- THRST Thrust
- TOC Top of Climb
- TOD Top of Decent
- TOGA Takeoff/Go-Around
- TSO Technical Standard Order
- UIR Upper Information Region
- USG United States Gallon
- USPD Underspeed
- $V_1$  Takeoff Decision Speed
- VNAV Vertical Navigation
- VPA Vertical Path Approach
- $V_{REF}$  Reference Landing Speed
- VSD Vertical Situation Display
- WX DEV Weather Deviation
- WT Weight

## 6. DEFINITIONS

These definitions are for the purpose of this report only.

**6.1 Base Aircraft.** An aircraft identified for use as a reference to compare differences with another aircraft.

**6.2 Current.** A crewmember meets all requirements to operate the aircraft under the applicable operating part.



- 6.3 Differences Tables.** Describe the differences between a pair of related aircraft, and the minimum levels operators must use to conduct differences training and checking of flightcrew members. Differences levels range from A to E.
- 6.4 Master Differences Requirements (MDR).** Specifies the minimum levels of training and checking required between a pair of related aircraft, derived from the highest level in the Differences Tables.
- 6.5 Mixed Fleet Flying (MFF).** The operation of a base aircraft and one or more related aircraft for which credit may be taken for training, checking, and currency events.
- 6.6 Operational Evaluation.** The AED process to determine pilot type rating, minimum flightcrew member training, checking and currency requirements, and unique or special airman certification requirements (e.g., specific flight characteristics, no-flap landing).
- 6.7 Operational Suitability.** The AED determination that an aircraft or system may be used in the National Airspace System (NAS) and meets the applicable operational regulations (e.g., Title 14 of the Code of the Federal Regulations (14 CFR) parts 91, 121, 133, and 135).
- 6.8 Qualified.** A flightcrew member holds the appropriate airman certificate and ratings as required by the applicable operating part.
- 6.9 Related Aircraft.** Any two or more aircraft of the same make with either the same or different type certificates (TC) that have been demonstrated and determined by the Administrator to have commonality.
- 6.10 Seat-Dependent Tasks.** Maneuvers or procedures using controls that are accessible or operable from only one flightcrew member seat.
- 6.11 Special Emphasis Area.** A training requirement unique to the aircraft, based on a system, procedure, or maneuver, which requires additional highlighting during training. It may also require additional training time, specialized flight simulation training devices (FSTD), or training equipment.
- 6.12 Specific Flight Characteristic.** A maneuver or procedure with unique handling or performance characteristics that the FSB has determined must be checked.

## **7. PILOT TYPE RATING**

- 7.1 Type Rating.** The Bombardier Global 7500 type rating designation is G7500.
- 7.2 Common Type Ratings.** Not applicable.
- 7.3 Military Equivalent Designations.** Not applicable.

## **8. RELATED AIRCRAFT**

**8.1 Related Aircraft on Same TCDS.** Not applicable.

**8.2 Related Aircraft on Different TCDS.** Not applicable.

## **9. PILOT TRAINING**

**9.1 Airman Experience.** Airmen receiving initial Global 7500 training should have prior experience operating multiengine, large, transport category, and turbojet aircraft, in accordance with 14 CFR part 91, 121, 125, or 135. Additionally, a working knowledge of systems, such as automatic flight control system (AFCS), autothrottles (AT), automatic braking system (ABS), flight management system (FMS), IFIS, ECL, HUD, Nosewheel Steering (NWS) Tiller, FBW and advanced integrated avionics systems with electronic flight displays is highly recommended. Pilots without this experience may require additional training.

### **9.2 Special Emphasis Areas.**

9.2.1 Pilots must receive special emphasis ground training in the following areas:

9.2.1.1 FMS (Initial, Recurrent, Upgrade, and Transition Training).

- a) Knowledge of the Flight Mode Annunciator (FMA) and the various FMS modes of automation and limitations;
- b) Knowledge and skills related to DU/Multifunction Windows (MFW)/Flight Control Panel (FCP) use;
- c) Recognition of mode awareness and transition modes through use of the FMA;
- d) Crew Resource Management (CRM) issues linked to automation (task sharing and crosschecks);
- e) Programming of a holding pattern (performed on the coupled side);
- f) NAV-to-NAV and non-NAV-to-NAV transfers;
- g) Localizer (LOC), Localizer back course (LOC BC) and other 2D approaches per operator procedures and techniques; and
- h) FMS speed automatically reverts to 250 kts when extending runway centerline while on a vectored approach.

9.2.1.2 ECL (Initial, Recurrent, and Transition Training).

- a) Knowledge of appropriate logic and use of ECL in conjunction with system failures;
- b) Prioritization logic of ECL procedures;
- c) Conditional item selection (e.g., yes/no, left/right);
- d) Procedures without associated Crew Alerting System (CAS) message;
- e) Flightcrew positive item identification, crosscheck, and confirmation of actions; and

- f) Knowledge of alternative methods of checklist usage (normal, abnormal, and emergency) in the event of MEL deferral of the ECL.
- 9.2.1.3 Emergency Descent Mode (EDM). Activation, functionalities, and differences between manual and automatic modes (e.g., autopilot, squawk, recovery, heading and altitude management) (initial, recurrent, and transition training).
- 9.2.1.4 FBW System (Initial, Recurrent, and Transition Training).
- a) Knowledge of all characteristics, including flight and structural protections provided by the flight control laws.
  - b) Operational considerations and handling degradation associated with all FBW direct modes (Primary Flight Control Computer direct mode, Remote Electronic Unit direct mode, and Alternate Flight Control Unit).
  - c) Knowledge of appropriate pilot actions to take should FBW system malfunctions occur.
- 9.2.1.5 Traffic Alert and Collision Avoidance System (TCAS) Limitation. TCAS Resolution Advisory (RA) inhibited altitude criteria above 44,000 ft. (initial, recurrent, and transition training).
- 9.2.1.6 Unreliable Airspeed/Altitude. Unreliable airspeed/altitude procedures including a low-speed scenario, in which pilots have to disregard erroneous flight director (FD)/Flight Path Vector (FPV) cues (initial, recurrent, and transition training).
- 9.2.1.7 Balked, Bounced, or Touch and Go Landing. The behavior of the flight guidance system (FGS) with takeoff/go-around (TOGA) button activation and nuisance “No take-off” warning during a balked landing with ground contact, bounced landing, and/or touch and go (initial, recurrent, upgrade, and transition training).
- 9.2.1.8 Control Tuning Panel (CTP). Recovery of the altimeter pressure settings after an inadvertent selection of the STD button following a failed CTP (initial, recurrent, upgrade, and transition training).
- 9.2.1.9 HUD. Limitations, indications, symbology, and use of HUD(s). Training for failed HUD, single, and/or dual installation (initial, recurrent, upgrade, and transition training).
- 9.2.1.10 Fuel System (Initial, Recurrent, Upgrade, and Transition Training).
- a) Knowledge of the highly automated fuel system.
  - b) Knowledge of the Fuel Quantity and Management Computer (FQMC).
  - c) Failures involving the FQMC.

- d) Lateral and longitudinal fuel imbalances.
- e) Center tank and/or aft tank trapped fuel scenarios and their impacts on aircraft center of gravity (CG) envelope.

- 9.2.1.11 Principles of Vertical Navigation (VNAV). Including the proper interpretation of all VNAV FMAs during climb, descent, and approach (initial, recurrent, upgrade, and transition training).
- 9.2.1.12 Inability to meet departure procedure climb gradient requirement at weights at or above 110,000 lb (initial, recurrent, upgrade, and transition training).

- 9.2.1.13 Rejected Takeoff (RTO). RTO is in an armed state if wheel speed is greater than 60 kts. There are two deceleration rates that depend on wheel speed being greater than or less than 70 kts when RTO is activated (initial, recurrent, upgrade, and transition training).

- 9.2.1.14 Abnormal and Emergency Procedures (Initial, Recurrent, Upgrade, and Transition Training). Bombardier's philosophy is to not identify any steps in the Global 7500 abnormal or emergency procedures as "Memory Items." Bombardier expects pilots to perform some of the initial and critical steps without reference to any documentation. The initial pilot responses for the following emergency procedures should be performed promptly without reference to a checklist:

- a) RTO,
- b) Engine failure/fire after takeoff decision speed ( $V_1$ ),
- c) Emergency descent,
- d) Rapid decompression,
- e) Engine exceedance,
- f) Overspeed,
- g) Stall protection/stall warning activation,
- h) Total loss of braking,
- i) Enhanced ground proximity warning system (EGPWS) alert,
- j) Wind shear alerts, and
- k) TCAS activation.

**NOTE:** In addition, pilots are expected to don oxygen masks promptly when appropriate (e.g., decompression, smoke). Operators and training providers must ensure pilots are adequately trained.

- 9.2.1.15 Go-around below decision altitude (DA) without TOGA buttons (initial, recurrent, upgrade, and transition training).

- 9.2.2 Pilots must receive special emphasis on, and perform the following tasks during flight training (initial, recurrent, upgrade, and transition training):

- a) Direct Mode(s) – Stall recognition and prevention along with the appropriate stall recovery techniques, steep turns, and either visual or instrument approaches ending with a landing in direct mode(s). This training can only be accomplished in an FFS.
- b) Manual flight of the aircraft with the minimum use of automation (without autopilot and AT) during one-engine-inoperative (OEI) and all-engines-operating (AEO) takeoff and landings.
- c) Appropriate use of speed selection mode and intervention (manual vs. FMS speed).
- d) Alternative methods of checklist usage (normal, abnormal, and emergency) in the event of deferral of the ECL by the minimum equipment list (MEL).
- e) Bank angle awareness during crosswind landings, due to wing sweep, as the airplane pitch attitude increases, and the bank angle at which the wingtip contacts the ground decreases.
- f) FBW flight envelope and structural protections.
- g) Go-around below DA without TOGA buttons.

**9.3 Specific Flight Characteristics.** Maneuvers or procedures required to be checked as referenced in the Airline Transport Pilot (ATP) and Type Rating for Airplane Airman Certification Standards (ACS), as applicable. There are no specific flight characteristics.

**9.4 Seat-Dependent Tasks.** Pilots must receive training in these seat-dependent tasks:

- a) HUD (left seat), (initial, recurrent, upgrade, and transition training).
- b) HUD (right seat), second in command (SIC) type rating only if installed in aircraft.
- c) NWS tiller usage (left seat), (initial, recurrent, upgrade, and transition training).
- d) Passenger oxygen (right seat), (initial, upgrade, and transition training).
- e) Cockpit Power On check (left and right seat), (initial, recurrent, upgrade, and transition training).

**9.5 Regulatory Training Requirements Which Are Not Applicable to the Global 7500.** None.

**9.6 FSTDs.**

- a) The manufacturer's training program included aircraft systems integration training as an extension of and key component of ground training. The FSB evaluated this training in a Level 4 FTD and determined that the training as delivered was adequate. Training offered in a lower level device would need further evaluation.
- b) HUD (single or dual installations) must be trained in a Level C FFS with a daylight visual display, or Level D FFS in both day and night conditions.

**9.7 Training Equipment.** There are no specific systems or procedures that are unique to the Global 7500 that require specific training equipment.

**9.8 Differences Training Between Related Aircraft.** Not applicable.

## 10. PILOT CHECKING

**10.1 Landing from a No-Flap or Nonstandard Flap Approach.** The probability of flap extension failure, slats extension failure, or slats/flap extension failure on the Global 7500 aircraft is extremely remote due to system design. Therefore, demonstration of a no-flap approach, no-slats approach, or no-slats/flap approach and landing during pilot certification or 14 CFR part 61, § 61.58 proficiency check, part 91, § 91.1065 competency check, and part 125, § 125.287 competency check, or part 135, § 135.293 competency check is not required.

**10.2 Specific Flight Characteristics.** There are no specific flight characteristics.

**10.3 Seat-Dependent Tasks.** Pilots must be checked in these seat-dependent tasks:

- a) Precision and Nonprecision approaches using HUD (left seat), (initial, recurrent, upgrade, and transition checking).
- b) NWS (left seat), (initial, recurrent, upgrade, and transition checking).

**10.4 Other Checking Items.** Not applicable.

**10.5 FSTDs.** There are no specific systems, procedures, or maneuvers that are unique to the Global 7500 that require a specific FSTD for checking.

**10.6 Equipment.** There are no specific systems or procedures that are unique to the Global 7500 that require specific equipment.

**10.7 Differences Checking Between Related Aircraft.** Not applicable.

## 11. PILOT CURRENCY

There are no additional currency requirements for the Global 7500 other than those already specified in 14 CFR parts 61, 125, and 135.

**11.1 Differences Currency Between Related Aircraft.** Not applicable.

## 12. OPERATIONAL SUITABILITY

The Global 7500 is operationally suitable for operations conducted in accordance with 14 CFR parts 91, 125, and 135. The FSB determined operational compliance by conducting an evaluation of aircraft serial number 70004 during a series of flights from November 29, 2018 through December 5, 2018. The flights originated in Wichita, Kansas (KICT) with operations at Hayden, Colorado (KHDN), Salina, Kansas (KSLN), Amarillo, Texas (KAMA), and Albuquerque, New Mexico (KABQ). The list of operating rules evaluated is on file at the AED Corporate Aviation Branch.

## 13. MISCELLANEOUS

**13.1 Flightcrew Sleeping Facilities (14 CFR Part 135).** The Global 7500 Flightcrew Sleeping Facilities (Class 1 Rest Facility) is installed via a complete interior Supplemental Type Certificate (STC). The flightcrew sleeping facilities seat identified as a B/E Aerospace, Inc. Technical Standard Order (TSO) authorization (C-127b) Crew Rest Seat (Model Number 3A()F()110()()) located in the forward crew area was evaluated on December 5, 2018, by the AEG. It was determined that it met the requirements of 14 CFR parts 91 subpart K (part 91K), 125, and 135; AC 117-1 Change 1, Flightcrew Member Rest Facilities; and FAA Order 8900.1, Flight Standards Information Management System.

**13.2 Forward Observer Seat.** The Global 7500 forward observer seat is installed via a complete interior installation STC. The seat identified as a B/E Aerospace Fischer GmbH European TSO (EASA.210.10056434) Cockpit Observer Seat 404/356 H153 was evaluated on December 5, 2018, by the AEG and found to meet the requirements of 14 CFR §§ 125.317(b), 135.75(b), and the current edition of AC 120-83, Flight Deck Observer Seat and Associated Equipment.

### 13.3 Aircraft Approach Category.

- a) Refer to 14 CFR part 97, § 97.3. The Global 7500 is considered Category C for the purposes of determining “straight-in landing weather minima.”
- b) Circling approaches for the Global 7500 are flown with the landing gear down, Flaps 4, and reference landing speed ( $V_{REF}$ ) + 10 kts. The approach category and associated approach minima shall not be less than Category C on a circling approach.

**13.4 Normal Landing Flaps.** The Global 7500 normal “final flap setting” per 14 CFR § 91.126(c) is Flaps 4.

**13.5 ABS.** Autobrakes are part of the production configuration. The autobrakes installation contains a magnetically latched arming coil that holds the selected switch position in place while the system is armed. If the system disarms, the coil is de-energized, and the spring-loaded rotary switch returns to the “off” position. The autobrakes mode selector switch provides an RTO position for takeoff, and LOW, MED, and HI settings for landing. In the off position, the autobrake function is inhibited. The LOW, MED, and HI landing modes provide a controlled rate of deceleration based upon selection.

**13.6 IFIS.** The IFIS provides increased situational awareness (SA) and improved flight compartment efficiency through the following functions:

- a) Enhanced map overlays with geopolitical data, airspace, and airway map;
- a) Electronic navigation charts (e.g., Jeppview, E-Chart);
- b) Graphical weather images downloaded from airplane datalink (optional);

- c) Document application reader; and
- d) Printer application.

**NOTE:** IFIS information is displayed on the MFWs.



## APPENDIX 1. DIFFERENCES LEGEND

### Training Differences Legend

Differences Level	Type	Training Method Examples	Conditions
A	Self-Instruction	<ul style="list-style-type: none"> <li>• Operating manual revision (handout (HO))</li> <li>• Flightcrew operating bulletin (HO)</li> </ul>	<ul style="list-style-type: none"> <li>• Crew has already demonstrated understanding on base aircraft (e.g., updated version of engine).</li> <li>• Minor or no procedural changes required.</li> <li>• No safety impact if information is not reviewed or is forgotten (e.g., different engine vibration damping mount).</li> <li>• Once called to attention of crew, the difference is self-evident.</li> </ul>
B	Aided Instruction	<ul style="list-style-type: none"> <li>• Audiovisual presentation (AV)</li> <li>• Tutorial computer-based instruction (TCBI)</li> <li>• Stand-up instruction (SU)</li> </ul>	<ul style="list-style-type: none"> <li>• Systems are functionally similar.</li> <li>• Crew understanding required.</li> <li>• Issues need emphasis.</li> <li>• Standard methods of presentation required.</li> </ul>
C	Systems Devices	<ul style="list-style-type: none"> <li>• Interactive (full-task) computer-based instruction (ICBI)</li> <li>• Cockpit Procedures Trainers (CPT)</li> <li>• Part task trainers (PTT)</li> <li>• Level 4 or 5 flight training device (FTD 4-5)</li> </ul>	<ul style="list-style-type: none"> <li>• Training can only be accomplished through systems training devices.</li> <li>• Training objectives focus on mastering individual systems, procedures, or tasks versus highly integrated flight operations or “real-time” operations.</li> <li>• Training devices are required to assure attainment or retention of crew skills to accomplish more complex tasks usually related to aircraft systems.</li> </ul>
D	Maneuvers Devices	<ul style="list-style-type: none"> <li>• Level 6 or 7 flight training device (FTD 6-7)</li> <li>• Level A or B full flight simulator (FFS A-B)</li> </ul>	<ul style="list-style-type: none"> <li>• Training can only be accomplished in flight maneuver devices in a real-time environment.</li> <li>• Training requires mastery of interrelated skills versus individual skills.</li> <li>• Motion, visual, control-loading, and specific environmental conditions may be required.</li> </ul>
E	Level C/D FFS or Aircraft	<ul style="list-style-type: none"> <li>• Level C or D full flight simulator (FFS C-D)</li> <li>• Aircraft (ACFT)</li> </ul>	<ul style="list-style-type: none"> <li>• Motion, visual, control-loading, audio, and specific environmental conditions are required.</li> <li>• Significant full-task differences that require a high-fidelity environment.</li> <li>• Usually correlates with significant differences in handling qualities.</li> </ul>

### Checking Differences Legend

<b>Differences Level</b>	<b>Checking Method Examples</b>	<b>Conditions</b>
A	None	None
B	<ul style="list-style-type: none"> <li>• Oral or written exam</li> <li>• Tutorial computer-based instruction (TCBI) self-test</li> </ul>	Individual systems or related groups of systems.
C	<ul style="list-style-type: none"> <li>• Interactive (full-task) computer-based instruction (ICBI)</li> <li>• Cockpit Procedures Trainers (CPT)</li> <li>• Part task trainers (PTT)</li> <li>• Level 4 or 5 flight training device (FTD 4-5)</li> </ul>	<ul style="list-style-type: none"> <li>• Checking can only be accomplished using systems devices.</li> <li>• Checking objectives focus on mastering individual systems, procedures, or tasks.</li> </ul>
D	<ul style="list-style-type: none"> <li>• Level 6 or 7 flight training device (FTD 6-7)</li> <li>• Level A or B full flight simulator (FFS A-B)</li> </ul>	<ul style="list-style-type: none"> <li>• Checking can only be accomplished in flight maneuver devices in a real-time environment.</li> <li>• Checking requires mastery of interrelated skills versus individual skills.</li> <li>• Motion, visual, control-loading, and specific environmental conditions may be required.</li> </ul>
E	<ul style="list-style-type: none"> <li>• Level C or D full flight simulator (FFS C-D)</li> <li>• Aircraft (ACFT)</li> </ul>	Significant full-task differences that require a high-fidelity environment.

## APPENDIX 2. MASTER DIFFERENCES REQUIREMENTS (MDR) TABLE

These are the minimum levels of training and checking required, derived from the highest level in the Differences Tables in Appendix 3. Differences levels are arranged as training/checking.

<b>To Related Aircraft ↓</b>	<b>From Base Aircraft →</b>	<b>Global 7500</b>	<b>Global 8000</b>
Global 7500		Not applicable	B/B/B
Global 8000		C/B/B	Not applicable

## APPENDIX 3. DIFFERENCES TABLES

### Global 7500 Software Version 2.2 to Software Version 2.5

This Design Differences Table, from the Global 7500 software version 2.2 to software version 2.5 was proposed by Bombardier and validated by the FSB. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

UPGRADE: BD-700-2A12 (Global 7500 V2.5) BASE: BD-700-2A12 (Global 7500 V2.2)				COMPLIANCE METHOD					
APPROVED BY (POI)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Manuals	FON removals: AVNC-001-NC, AVNC-002-NC, AVNC-013-A, AVNC-018-NC, AVNC-033-NC, AVNC-041-NC, GEN-001-NC, GEN-005-A, GEN-006-NC, GEN-007-NC, GEN-008-NC, GEN-009-NC, GEN-010-NC, GEN-014-NC, GEN-016-NC, GEN-024-NC, GEN-038-NC, GEN-030-NC, AVNC-014-A, AVNC-017-NC, AVNC-042-NC, AVNC-045-NC, AVNC-048-NC, GEN-019-NC.	No	No	X				A	A

UPGRADE: BD-700-2A12 (Global 7500 V2.5) BASE: BD-700-2A12 (Global 7500 V2.2)				COMPLIANCE METHOD					
<u>APPROVED BY</u> (POI)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Manuals	Various updates to Bombardier Manuals with effectivity boxes where applicable.	No	No	X				A	A
Limitations	Limitation changes/removals.	No	No	X				A	A
Avionics	LPV diamond indications instead of star.	No	No	X				A	A
Avionics	EFIS COMP FAIL CAS procedure modified.	No	Yes	X				A	A
SMS	SMS logic improvement (SMS triggering and logic increased to 45 from 35).	No	No	X				A	A
FMS	Reset Fuel Used button added on FUEL MGMT Page.	No	No	X				A	A
FMS	VNAV THRST CRZ TAB toggle added for CLB/CRZ thrust selection.	No	No	X				A	A
FMS	New FPLN CRS button available on INTC CRS dialog box.	No	No	X				A	A
FMS	Various CPDLC improvements and formatting changes: LOGON/STATUS page MESSAGE RESPONSE page; MESSAGE LOG page ROUTE REQUEST page.	No	No	X				A	A
Supplement 13	BTMS limitation just prior to takeoff guidance has been moved to the BRAKE TEMP procedure.	No	Yes	X				A	A

UPGRADE: BD-700-2A12 (Global 7500 V2.5) BASE: BD-700-2A12 (Global 7500 V2.2)				COMPLIANCE METHOD					
<u>APPROVED BY</u> (POI)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Limitations	Use of TOD/TOC limitation removed.	No	No	X				A	A
Limitations	FMS – loading saved pilot route within 2 min of a TO waypoint is removed.	No	Yes	X				A	A
Limitations	Prohibited use of ETPs removed.	No	Yes	X				A	A
Limitations	FMS HOLD dialog box limitation removed.	No	No	X				A	A
Limitations	FMS HOLD on coupled side removed.	No	No	X				A	A
Limitations	FMS flight plan STEPS more than 9 is removed.	No	No	X				A	A
Limitations	FMS track change when more than 50 degrees STEP is removed.	No	No	X				A	A
Limitations	TOD limitations on MAP/VSD removed.	No	No	X				A	A
Limitations	FMS use of LRC or MX CRZ SPD MODE limitation removal below FL 290.	No	No	X				A	A
Limitations	FMS CHECK WT/BAL requiring a minimum of 500 pounds entered into taxi fuel removed.	No	No	X				A	A
Limitations	FMS Altitude/speed constraints on STAR/approach limitation removed.	No	No	X				A	A
Limitations	Flight plan uplink limitation removed.	No	No	X				A	A
Limitations	Coupled FMS changes during uplink limitation removed.	No	No	X				A	A

UPGRADE: BD-700-2A12 (Global 7500 V2.5) BASE: BD-700-2A12 (Global 7500 V2.2)				COMPLIANCE METHOD					
<u>APPROVED BY</u> (POI)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Limitations	WX DEV TO selection on CPDLC route page limitation removed.	No	No	X				A	A
Limitations	DIVERT TO on CPDLC limitation removed.	No	No	X				A	A
FMS	FMS White LNAV MINS AVAILABLE FMS message added.	No	No	X				A	A
FMS	CHK DATA BASE DATE FMS message added.	No	No	X				A	A
FMS	NO VPATH-VPA FMS message added.	No	No	X				A	A

This Maneuver Differences Table, from the Global 7500 software version 2.2 to software version 2.5, was proposed by Bombardier and validated by the FSB. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

UPGRADE: BD-700-2A12 (Global 7500 V2.5) BASE: BD-700-2A12 (Global 7500 V2.2)				COMPLIANCE METHOD					
<u>APPROVED BY</u> (POI)				TRAINING				CHKG/CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
N/A	No changes to handling characteristics.								



## Global 7500 to Global 8000

This Design Differences Table, from the Global7500 to the Global 8000 was proposed by Bombardier and validated by the FSB. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

UPGRADE: BD-700-2A12 (Global 8000) BASE: BD-700-2A12 (Global 7500)				COMPLIANCE METHOD					
<u>APPROVED BY</u> (POI)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Design Weights	Increase in total useable fuel volume from 7,687 USG to 7,754 USG (51,850 lb to 52,300 lb).	No	No	X				A	A
Flight Envelope	Increased M <sub>MO</sub> from M0.925 to M0.95.	No	No		X			B	B
Powerplant	Thrust Increase in cruise by up to 7% under certain conditions (thrust bump).	No	No		X			B	B
ECS	Delta P warning changed from 10.73 to 11.4 psid (max Delta P limitation also updated).	No	No		X			B	B
ECS	Reduced cabin altitude throughout the flight envelope (e.g., 2700 ft at 41,000 ft (pressurization schedule change – fully automatic).	No	No	X				A	A
AFM	RVSM required equipment table requires 3 ADS.	No	No		X			B	B
Engine	Model number changed to GE Passport 20-19BB1B with new FADEC installed.	No	No	X				A	A

UPGRADE: BD-700-2A12 (Global 8000) BASE: BD-700-2A12 (Global 7500)				COMPLIANCE METHOD					
<u>APPROVED BY</u> (POI)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Supplement 5 – Flex Takeoff	Limitation change to remove +39 limitation for flex takeoff assumed temperature.	No	No	X				A	A
AFM Limitation	Limitation change to ITT during start.	No	No	X				A	A

UPGRADE: BD-700-2A12 (Global 8000) BASE: BD-700-2A12 (Global 7500)				COMPLIANCE METHOD					
APPROVED BY (POI)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Avionics	Airspeed Tape update for higher M <sub>MO</sub> (HUD and PFD).	No	No	X				A	A
Avionics	Auto Air Data source selection.	No	Non-Normal			X		B	B
Controls and Indications	2 new CAS messages RVSM PERF DEGRADED (Caution) and ADS MANUAL SELECTED (Status).	No	Non-Normal			X		B	B
FMS	Updated to support higher M <sub>MO</sub> and increased volume.	No	No	X				A	A
Flight Controls	FBW updated to support higher M <sub>MO</sub> .	No	No	X				A	A
ISI	Updated for higher M <sub>MO</sub> .	No	No	X				A	A
Pneumatic System	New limitation for APU Bleed extraction up to 29000 ft.	No	No	X				A	A
Communications	Second HF is now an option.	No	No	X				A	A
CIFP	Performance updates (no change to CIFP menus).	No	No	X				A	A
ECS	New ECS Safety Valve to accommodate reduced cabin altitude.	No	No	X				A	A
AFM	New manuals including AFM, FCOM, QRH specific to 8000.	No	No	X				A	A

This Maneuver Differences Table, from the Global Express to the Global 5000, was proposed by Bombardier and validated by the FSB. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

UPGRADE: BD-700-2A12 (Global 8000) BASE: BD-700-2A12 (Global 7500)				COMPLIANCE METHOD					
<u>APPROVED BY</u> (POI)				TRAINING				CHKG/CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
N/A	No changes to handling characteristics.								

\*NOTE: There are no differences for Steep Approach, CAT II, EFVS, or RNP AR Specialty training between the 7500 to 8000.

\*\*NOTE: There are no differences for ROAAS between the G7500 and G8000.

## Global 8000 to Global 7500

This Design Differences Table, from the Global 8000 to the Global 7500, was proposed by Bombardier and validated by the FSB. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

UPGRADE: BD-700-2A12 (Global 7500) BASE: BD-700-2A12 (Global 8000)				COMPLIANCE METHOD					
<u>APPROVED BY</u> (POI)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Design Weights	Decrease in total useable fuel volume from 7,754 USG to 7,687 USG (52,300 lb to 51,850 lb).	No	No	X				A	A
Flight Envelope	Decrease in M <sub>MO</sub> from M0.95 to M0.925.	No	No		X			B	B
Powerplant	Less thrust available in cruise (up to 7% less) under certain conditions.	No	No	X				A	A
ECS	Delta P warning Changed from 11.4 to 10.73 psid (max Delta P limitation also updated).	No	No		X			B	B
ECS	Cabin altitude modified throughout the entire flight envelope (e.g., 3700 ft at 41,000 ft) (pressurization schedule change – fully automatic).	No	No	X				A	A
AFM	RVSM required equipment table requires 2 ADS.	No	No		X			B	B
Engine	Model number changed to GE Passport 20-19BB1A with new FADEC installed.	No	No	X				A	A

UPGRADE: BD-700-2A12 (Global 7500) BASE: BD-700-2A12 (Global 8000)				COMPLIANCE METHOD					
<u>APPROVED BY</u> (POI)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Supplement 5 – Flex Takeoff	Limitation change to add +39 limitation for flex takeoff assumed temperature.	No	No		X			B	B
AFM Limitation	Limitation change to ITT during start.	No	No		X			B	B

UPGRADE: BD-700-2A12 (Global 7500) BASE: BD-700-2A12 (Global 8000)				COMPLIANCE METHOD					
APPROVED BY (POI)				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Avionics	Airspeed Tape update for lower M <sub>MO</sub> (HUD and PFD).	No	No	X				A	A
Avionics	Manual selection of Air Data source only.	No	Non-Normal		X			B	B
Controls and Indications	2 CAS messages Removed: RVSM PERF DEGRADED (Caution) and ADS MANUAL SELECTED (Status).	No	Non-Normal		X			B	B
FMS	Updated to support lower M <sub>MO</sub> and lowered fuel volume.	No	No	X				A	A
Flight Controls	FBW modified for lower M <sub>MO</sub> .	No	No	X				A	A
ISI	Updated for lower M <sub>MO</sub> .	No	No	X				A	A
Pneumatic System	New limitation for APU Bleed extraction to 25000 ft.	No	No		X			B	B
Communication s	Second HF is baseline.	No	No	X				A	A
CIFP	Performance Updates (no change to CIFP menus).	No	No	X				A	A
ECS	ECS Safety Valve to accommodate cabin altitude.	No	No	X				A	A
AFM	New manuals including AFM, FCOM, QRH specific to 7500.	No	No	X				A	A

This Maneuver Differences Table, from the Global 5000 to the Global Express, was proposed by Bombardier and validated by the FSB. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

UPGRADE: BD-700-2A12 (Global 8000) BASE: BD-700-2A12 (Global 7500)				COMPLIANCE METHOD					
<u>APPROVED BY</u> (POI)				TRAINING				CHKG/CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
N/A	No changes to handling characteristics.								

\*NOTE: There are no differences for Steep Approach, CAT II, EFVS, or RNP AR Specialty training between the 7500 to 8000.

\*\*NOTE: There are no differences for ROAAS between the G7500 and G8000.



# **APPENDIX 4. ROCKWELL COLLINS PRO LINE FUSION FUTURE AIR NAVIGATION SYSTEM (FANS) 1/A+ CORPORATE DATA LINK COMMUNICATIONS SYSTEM (CMU-4000/RIU-40X0) CONTROLLER-PILOT DATA LINK COMMUNICATIONS (CPDLC)**

## **1. BACKGROUND**

In October 2019, the FAA Bombardier Global 7500 FSB informed the lead regulatory authority that the FAA decided to review and analyze the data provided by TCCA for the Rockwell Collins Pro Line Fusion Future Air Navigation System (FANS) 1/A+, CPDLC System. TCCA submitted their operational suitability data report to the FAA FSB for an extensive review and analysis. The FAA FSB compiled this appendix from TCCA's operational suitability data report after an extensive review and analysis was completed. Through analysis, the FAA FSB found the CPDLC to be operationally suitable.

### **1.1 Features of FANS 1/A+ Include:**

- a) CPDLC allows datalink messages to substitute for traditional voice communications between a crew and an air traffic controller. CPDLC messages request and grant clearances, inform the ground of the aircraft's position and situation, and provide instructions to the crew.
- b) Aircraft Facilities Notification (AFN) allows the aircraft and an Air Traffic Services (ATS) provider on the ground to exchange addresses, as well as information about which FANS applications they support.
- c) Automatic Dependent Surveillance-Contract (ADS-C) allows ATS providers to query the aircraft to provide position reports and other situational data at regular intervals or in response to events specified by the ATS provider, such as a change in altitude or lateral deviation.

### **1.2 Aeronautical Telecommunications Network Baseline 1 (ATN B1):**

- a) ATN B1 is a separate standard used in the European Upper Information Region (UIR).
- b) ATN B1 has less functionality than FANS 1/A+.

## **2. PILOT TYPE RATING**

Not applicable.

## **3. RELATED AIRCRAFT**

Not applicable.

## 4. PILOT TRAINING

Training Differences: Level C.

**4.1 Experience/Prerequisite.** The pilots must be:

- a) Qualified and current on the Global 7500 aircraft; or
- b) In training in an initial, differences, transition, upgrade, or recurrent course.

**4.2 Special Emphasis Areas.** Not applicable.

**4.3 Ground Training.** Flightcrews operating aircraft equipped with FANS should receive appropriate instruction in its general operational functions, appropriate uses for areas of operation, routes, and airspace procedures. General training should address communications, navigation, and surveillance (CNS) functions covered by FANS 1/A+ and ATN B1. The initial, transition, and upgrade ground training should include a thorough understanding of the use and any limitations associated with the following items:

4.3.1 Ground Training:

- a) Data entry formats for FANS 1/A+.
- b) CPDLC enroute use restrictions within the United States.
- c) Appropriate use or non-use of free text during certain operations.
- d) Data link communication failures.
- e) Proper manual entry of air traffic control (ATC) clearances into the source FMS.
- f) Emergency, Mayday, Pans, and associated elements data entries.

4.3.2 System Integration Ground Training:

4.3.2.1 FANS 1/A+ CPLDC:

- a) Logon – Log OFF.
- b) Clearances.
- c) Emergency.
- d) Request.
- e) Offset.
- f) Reports (RPTS) list.
- g) Message logs.
- h) Position reporting.
- i) ADS-C.
- j) Airplane Flight Manual Supplement (AFMS).
- k) FANS 1/A+ data link
- l) Communications system operator's manual.
- m) AC 90-117, Data Link Communications.

#### 4.3.2.2 ATN B1 CPDLC:

- a) Network protocol.
- b) ATN B1 and FANS 1/A+ interoperability.
- c) ATN B1 and FANS 1/A+ differences.
- d) Logon.
- e) CPDLC page.
- f) Request functions.

**4.4 Flight Training.** Not applicable.

## 5. PILOT CHECKING

Checking Differences: Level C.

## 6. PILOT CURRENCY

Not applicable.

## 7. OPERATIONAL SUITABILITY

Based on a review of the TCCA evaluation results, the FSB found the CPDLC to be operationally suitable.

## **APPENDIX 5. ENHANCED FLIGHT VISION SYSTEM (EFVS) OPERATIONS**

### **1. BACKGROUND**

In January through February 2022, a Joint Operational Evaluation Board (JOEB) operational evaluation (FAA, TCCA and European Union Aviation Safety Agency (EASA)) convened in Montreal, Canada at CAE to evaluate the Bombardier Global 7500 ground and FFS training on EFVS Approach (EFVS-A) and EFVS Landing (EFVS-L). The JOEB then relocated to Fresno, California (KFAT) to conduct flights to make an operational suitability determination in Flight Test Vehicle 5 (C-GLBR) with the Collins Aerospace EVS-3600. Numerous EFVS approaches were flown to minimal Runway Visual Ranges (RVRs) which included landings and go-around/missed approaches.

**1.1 Features of EFVS-A.** Bombardier refers to Enhanced Flight Vision System Operations to 100 feet Height Above Touchdown (HAT) Zone Elevation (EFVS-100) as EFVS-A.

**1.2 Features of EFVS-L.** Bombardier refers to Enhanced Flight Vision System Operations to Touch Down and Rollout (EFVS-TD) as EFVS-L.

### **2. PILOT TYPE RATING**

Not applicable.

### **3. RELATED AIRCRAFT**

Not applicable.

### **4. PILOT TRAINING**

Training Differences: Level E.

**4.1 Experience/Prerequisite.** The pilots must be:

- a) Qualified and current on the Global 7500 aircraft; or
- b) In training in an initial, transition, upgrade, or recurrent course.

**4.2 Special Emphasis Areas.** The following items are recommendations noted by the FSB/JOEB to enhance pilot training and understanding of EFVS operations.

- 4.2.1 A Pilot Incapacitation demonstration was conducted during the FSB for EFVS operations to landing. If pilot incapacitation training is conducted during EFVS operations, the FSB recommends the Pilot Flying should become incapacitated with Pilot Monitoring assuming aircraft control at an altitude between 100 ft. above minimums through 100 ft. HAT as it is a time and altitude critical event and any delay in assumption of aircraft control could impact the safety of the flight.

- 4.2.2 Training conducted with degraded automation (without autopilot and AT):  
A complete EFVS approach profile flown with degraded automation.
  - 4.2.3 Different regulatory requirements for commencing and continuing the approach to landing using EVS with operational credits (current EASA requirements). The ground and flight training to include required visual cues, both natural and enhanced, to commence and continue the approach for landing, depending on the governing rules of the airspace operated, e.g., EASA, FAA, TCCA, etc.
  - 4.2.4 Air data system (ADS) failure during the approach. ADS failure(s) during an approach that require a pilot action and decision either to continue or discontinue the approach.
  - 4.2.5 FPV display. The training to include the FPV transitioning to non-conformal below the applicable DH/DA.
  - 4.2.6 Environmental conditions. The training to include effects of different environmental conditions during day and night operations, such as, fog, varying cloud bases, rain, snow, contaminated runway, winds, variable RVRs.
- 4.3 Ground Training.** Refer to 14 CFR part 61, § 61.66 and the current edition of AC 90-106, Enhanced Flight Vision Systems, for EFVS operations training requirements.
- 4.4 Flight Training.** Refer to 14 CFR part 61, § 61.66 and the current edition of AC 90-106, Enhanced Flight Vision Systems, for EFVS operations training requirements.

## 5. PILOT CHECKING

Checking Differences: Level E.

- 5.1 Title 14 CFR part 61.** Refer to 14 CFR 61, § 61.66 and the current edition of AC 90-106, Enhanced Flight Vision Systems, for EFVS operations proficiency requirements.
- 5.2 Title 14 CFR part 91K and 135.** Refer to the current edition of AC 90-106 and 14 CFR part 91, § 91.1065(g) or part 135, § 135.293(i) as applicable for EFVS task requirements during 14 CFR part 91 subpart K (part 91K) or part 135 competency checks.

## 6. PILOT CURRENCY

Refer to 14 CFR part 61, § 61.66 and the current edition of AC 90-106, Enhanced Flight Vision Systems for recent flight experience.

## **7. OPERATIONAL SUITABILITY**

The FSB determined that the EFVS is operationally suitable for use during EFVS operations under 14 CFR § 91.176(a) or (b).

An operational suitability determination does not constitute an operational authorization.

## **APPENDIX 6. REQUIRED NAVIGATION PERFORMANCE (RNP) AUTHORIZATION REQUIRED (AR)**

### **1. BACKGROUND**

In June 2023, a Joint Operational Evaluation Board (JOEB) operational evaluation (FAA, TCCA and EASA) convened in Montreal, Canada at CAE to evaluate the Bombardier Global 7500 ground and FFS training on RNP AR operations. The JOEB then relocated to Wichita, Kansas (KICT) to conduct flights to make an operational suitability determination in a Bombardier Demonstration Aircraft (N717GL). Numerous RNP AR approaches were flown at Rifle, Colorado (KRIL) which included low approaches and go-around/missed approaches.

RNP AR 0.3 approach capability is a standard feature of the Rockwell Collins Fusion software. The RNP AR training described in this appendix does not replace the requirements or considerations in the current edition of FAA AC 90-101, Approval Guidance for RNP Procedures with AR. This report's requirements and recommendations are in addition to AC 90-101.

### **2. PILOT TYPE RATING**

Not applicable.

### **3. RELATED AIRCRAFT**

Not applicable.

### **4. PILOT TRAINING**

The FSB has determined that the minimum training is Level E.

In conducting RNP AR approaches, specific duties and procedures are assigned to both the pilot flying (PF) and pilot monitoring (PM). Therefore, the requirements for initial and recurrent training as defined below are applicable to both pilot in command (PIC) and SIC.

#### **4.1 Experience/Prerequisite.** The pilots must be:

- a) Qualified and current on the Global 7500 aircraft; or
- b) In training in an initial, transition, upgrade, or recurrent course.

#### **4.2 Special Emphasis Areas.** The following items are recommendations noted by the FSB to enhance pilot training and understanding of RNP AR approach operations in the Global 7500.

- 4.2.1 Ground and flight training to include go around procedure when above the missed approach altitude including FMS sequencing.

- 4.2.2 Ground and flight training to include go around procedure when radius to fix legs are after the Final Approach Point including speed constraints, speed management and FMS sequencing.
- 4.2.3 Ground training on the actions to be taken when an Underspeed (USPD) occurs during a RNP AR approach as the vertical glide path will not arm.

#### **4.3 Ground Training.**

- 4.3.1 Initial ground training programs must fully comply with the requirements of the current edition of AC 90-101, Approval Guidance for RNP Procedures with AR.
- 4.3.2 Recurrent ground training must include, as a minimum, a review of “Pilot Procedures” and “Abnormal/Failures” as defined in AC 90-101.

#### **4.4 Flight Training.**

- 4.4.1 Initial flight training programs must fully comply with the requirements of the current edition of AC 90-101, Approval Guidance for RNP Procedures with AR.
- 4.4.2 Recurrent flight training programs must fully comply with the requirements of the current edition of AC 90-101.

### **5. PILOT CHECKING**

#### **5.1 Checking Differences: Level E.**

- 5.1.1 In conducting an RNP AR approach, specific duties and procedures are assigned to the PF and PM. Therefore, the requirement for initial and recurrent checking is applicable to both PIC and SIC.
- 5.1.2 Initial and recurrent RNP AR checking in a qualified FFS or Bombardier Global 7500 aircraft must include as a minimum:
  - a) Two RNP AR approaches flown as PF.
    - i) One takeoff with an RNP AR approach flown to an RNP published missed approach.
    - ii) One RNP AR approach flown to a landing.
  - b) One of the two RNP AR approaches must have Radius to Fix (RF) legs.
- 5.1.3 The PM must be RNP AR current and qualified in accordance with this appendix for all checks with the exception of an initial qualification check.

**NOTE:** An RNP AR approach may be substituted for any required precision or non-precision approach on any recurrent or proficiency check required under 14 CFR part 61, 91 or 135.



## **6. PILOT CURRENCY**

To maintain currency in RNP AR operations, a PIC must have accomplished at least one RNP AR approach to either a missed approach or landing within the preceding 6 months. Additionally, the PM (SIC) used in meeting this currency requirement must be RNP AR current and qualified as described in this appendix.

The RNP AR approach must have been accomplished in either an appropriately qualified FSTD or Global 7500 aircraft.

Any checking under 14 CFR part 61, 91 or 135 that require a demonstration of RNP AR approach competency that was accomplished within the preceding 6 months satisfies this currency requirement.

If RNP AR approach currency is lost, currency may be reestablished by completing the RNP AR recurrent training and checking elements defined in this appendix.

## **7. OPERATIONAL SUITABILITY**

The FSB determined that RNP AR approaches are operationally suitable.

An operational suitability determination does not constitute an operational authorization.

## APPENDIX 7. STEEP APPROACH OPERATIONS

### 1. BACKGROUND

In June 2023, a Joint Operational Evaluation Board (JOEB) operational evaluation (FAA, TCCA and EASA) convened in Montreal, Canada at CAE to evaluate the Bombardier Global 7500 ground and FFS training on steep approach operations at a maximum of 5.5 degrees which replicated London City, United Kingdom (EGLC) airport. The JOEB then relocated to Wichita, Kansas (KICT) to conduct flights to make an operational suitability determination in a Global 7500 aircraft (N717GL). Numerous steep approaches were flown at Branson, Missouri (KBBG) utilizing a 5.5-degree portable glideslope which included landings and go-around/missed approaches.

Steep approaches were flown during day visual meteorological conditions. Two engine steep approaches were flown, terminating with a landing or execution of a missed approach procedure. Steep approaches in the Global 7500 must be conducted with the HUD and both engines operative. The FSB also evaluated piloting skills required to perform a single-engine extraction at the missed approach point.

### 2. PILOT TYPE RATING

Not applicable.

### 3. RELATED AIRCRAFT

Not applicable.

### 4. PILOT TRAINING

Training Differences: Level E.

Both PIC and SIC, regardless of their crew assignment, must undergo the complete steep approach operations training.

The FSB requires ground and flight training for competency in conducting steep approach operations. Steep approach operations are demanding into any airport and can include modified procedures, short runways, and greater than “normal” sink rates.

Be advised, it is common that individual airport authorities have training and documentation requirements specific to their airports regarding steep approach operations.

#### 4.1 Experience/Prerequisite. The pilots must be:

- a) Qualified and current on the Global 7500 aircraft; or
- b) In training in an initial, transition, upgrade, or recurrent course.

**4.2 Special Emphasis Areas.** The following items are recommendations noted by the FSB to enhance pilot training and understanding of Global 7500 steep approach operations.

- 4.2.1 Aural alert inhibits below 185 feet (e.g., Surface Management System-Takeoff and Landing Awareness Function and Terrain Awareness Warning System mode 1 to 6, “SPEED”, “SPEED-SPEED-SPEED” and radio altimeter call outs) (ground training).
- 4.2.2 Lack of FMS Vertical Path Angle value indication between Final Fix and Runway (ground training).
- 4.2.3 Speed and performance calculations and limitation on take-off and landing data use (ground training/flight training).
- 4.2.4 Flare guidance system and its use (e.g., indications, limitations, callouts) (ground training/flight training).
- 4.2.5 The initial training for steep approach operations shall be comprised of steep approaches utilizing different conditions including day and night scenarios, crosswind, a visual approach, unique noise abatement departure procedures (thrust reduction at 400 feet) and various instrument approaches (flight training).

**4.3 Ground Training.** Ground training must include the following areas:

- 4.3.1 AFMS review to include limitations, procedures, weight and balance, performance, approach and landing configuration, landing flare, stall warning, and EGPWS Mode 1 operations.
- 4.3.2 Stages of the steep approach to include stabilized approach concept (proper airspeed, flap settings, multi-function spoilers, and landing gear), glideslope capture, flare attitude, and appropriate pitch rate.
- 4.3.3 Comparison of the steep approach sight picture to that of 3° (normal) approach.
- 4.3.4 Pilot techniques to include early configuration, avoidance of abrupt control inputs and over flaring.
- 4.3.5 Illusions to include runway dimension on height perception, crosswind condition perception, ground rush illusion, and black hole.
- 4.3.6 Identification of steep approaches, differences between landing distance data, London City Airport (EGLC) operations and lighting aids, and other steep approach airport restrictions, limitations, noise abatement and penalties.

#### **4.4 Flight Training.**

4.4.1 Flight training must be conducted in an FFS Level C or D or the aircraft. FFS must have 14 CFR part 60 Class I or II airport modeling with a steep approach. Aircraft training must have an acceptable means to replicate 5.5-degree glideslope.

4.4.2 Flight training must contain the following as a minimum:

- a) One approach utilizing a 5.5-degree glideslope to full stop using normal procedures.
- b) One approach utilizing a 5.5-degree glideslope to go-around using normal procedures.
- c) One approach utilizing a 5.5-degree glideslope with an engine failure during approach to a single engine go-around using abnormal procedures.
- d) One approach utilizing a 5.5-degree glideslope with an engine failure below DA/decision height (DH) to a landing.
- e) One approach utilizing a 5.5-degree glideslope in nighttime conditions to a full stop using normal procedures.

4.4.3 Environmental conditions for the flight training should attempt to replicate:

- a) Minimum ceiling and visibilities.
- b) Maximum allowable winds up to limiting values.

4.4.4 When utilizing an FFS:

- a) Repositions should occur to a point beyond and below the glideslope intercept to allow for PF practice of glideslope intercept transition.
- b) The last steep approach should occur in real time starting from takeoff to landing to include unique close in noise abatement procedure (thrust reduction at 400 feet).
- c) Increase turbulence level as wind speeds are increased due to building induced flow.

**4.5 Recurrent Training.** The FSB recommends, regardless of the number of steep approaches operationally completed, recurrent training be accomplished every 12 calendar months.

4.5.1 The ground training segment must cover the items listed in paragraph 4.3 of this appendix and may be abbreviated as deemed adequate by the instructor.

4.5.2 The flight training will include a minimum of three steep approach operations, which must consist of the following:

- a) One steep approach to a landing.
- b) One steep approach to a missed approach.
- c) One steep approach at night.

## **5. PILOT CHECKING**

Checking Differences: Level A.

There is no checking requirement for the Global 7500 steep approach qualification. Documented satisfactory completion of Global 7500 steep approach training is sufficient.

## **6. PILOT CURRENCY**

**6.1** If no steep approach operations have been conducted in the previous 3 calendar months, the pilot will conduct a self-review of the steep approach applicable information in the Airplane Flight Manual, AFMS, Flight Crew Operations Manual, Quick Reference Handbook, and any other operator identified material.

**6.2** The FSB recommends recurrent training be accomplished every 12 calendar months. No minimum training times are established for recurrent training.

## **7. OPERATIONAL SUITABILITY**

The FSB has determined that the conduct of steep approach operations, once trained, does not require greater than average piloting skills and steep approach operations are operationally suitable.

An operational suitability determination does not constitute an operational authorization.

## APPENDIX 8. CAT II APPROACH OPERATIONS

### 1. BACKGROUND

In October 2023, a Joint Operational Evaluation Board (JOEB) operational evaluation (FAA, TCCA and EASA) convened in Montreal, Canada at CAE to evaluate the Bombardier Global 7500 ground and FFS training on CAT II approach operations. The JOEB then relocated to Wichita, Kansas (KICT) to conduct flights to make an operational suitability determination in a Global 7500 aircraft (C-GLBX). Numerous CAT II approaches were flown at Omaha, Nebraska (KOMA), Forbes Field KS. (KFOE), and Wichita KS. (KICT) to landings, and go-around/ missed.

CAT II approaches were flown during day visual meteorological conditions. AEO and OEI CAT II approaches were flown, terminating with a landing or execution of a missed approach procedure. CAT II approaches in the Global 7500 can be conducted with the HUD, HDD, Autopilot on, Autopilot off, Autothrottle on, or Autothrottle off.

### 2. PILOT TYPE RATING

Not applicable.

### 3. RELATED AIRCRAFT

Not applicable.

### 4. PILOT TRAINING

Training Differences: Level D.

Both PIC and SIC, regardless of their crew assignment, must undergo the complete CAT II approach operations training.

The FSB requires ground and flight training for competency in conducting CAT II approach operations. CAT II approach operations are demanding into any airport and training should include low visibility/RVR minimum conditions, cross winds and turbulence.

#### 4.1 Experience/Prerequisite. The pilots must be:

- a) Qualified and current on the Global 7500; or
- b) In training in an initial, transition, upgrade, or recurrent course.

#### 4.2 Special Emphasis Areas. The following items are recommendations noted by the FSB to enhance pilot training and understanding of Global 7500 CAT II approach operations.

- 4.2.1 No Radio Altimeter (NO-RA) approaches; including applications and procedures during CAT II operations, cockpit setup including radio altimeter set to 5 feet.

- 4.2.2 No HUD operations/HDD only including sight picture and potential spatial disorientation when looking up when no HUD is used.

#### **4.3 Ground Training.** Ground training must include the following areas:

- 4.3.1 Must fully comply with all the requirements of the current edition of AC 120-118, Criteria for Approval/Authorization of All Weather Operations (AWO) for Takeoff, Landing, and Rollout.

#### **4.4 Flight Training.**

- 4.4.1 Flight training must be conducted in an FFS Level C or D or the aircraft. FFS must have 14 CFR part 60 Class I or II airport modeling with a CAT II approach. Aircraft training must have an acceptable means to replicate CAT II approach operations.
- 4.4.2 Must fully comply with all the requirements of the current edition of AC 120-118, Criteria for Approval/Authorization of All Weather Operations (AWO) for Takeoff, Landing, and Rollout.

#### **4.5 Recurrent Training.**

- 4.5.1 As required by the current addition of AC 120-118, Criteria for Approval/Authorization of All Weather Operations (AWO) for Takeoff, Landing, and Rollout.

### **5. PILOT CHECKING**

Checking Differences: Level D.

As required by the current addition of AC 120-118, Criteria for Approval/Authorization of All Weather Operations (AWO) for Takeoff, Landing, and Rollout.

### **6. PILOT CURRENCY**

- 6.1 The FSB recommends if no CAT II approach operations have been conducted in the previous 3 calendar months, the pilot will conduct a self-review of the CAT II approach applicable information in the Airplane Flight Manual, AFMS, Flight Crew Operations Manual, Quick Reference Handbook, and any other operator identified material.
- 6.2 No additional currency is required beyond what is covered in 14 CFR parts 61, 91, and 135.

## **7. OPERATIONAL SUITABILITY**

The FSB has determined that the conduct of CAT II approach operations, once trained, does not require greater than average piloting skills and CAT II approach operations are operationally suitable.

An operational suitability determination does not constitute an operational authorization.



## **APPENDIX 9. SOFTWARE VERSION 2.2 TO VERSION 2.5 UPGRADE**

### **1. BACKGROUND**

In January 2026, an FSB was convened to evaluate training, checking and currency requirements for the upgrade from software version 2.2 to version 2.5 and to determine operational suitability. Version 2.5 changes include avionics improvements and fixes from the 2.2 version.

**NOTE:** This appendix does not apply to the Global 7500 unless Service Bulletin (SB) 700-34-7524 has been incorporated.

A joint evaluation by TCCA and EASA was conducted in October 2025. The FAA could not participate in the joint evaluation due to a lapse in funding. Subsequently, the proposed courseware, which included the training program and operations manuals, was evaluated by analysis in November and December of 2025. In January 2026, an FSB convened at the Bombardier Flight Test Center facility in Wichita, Kansas using an engineering cab representing a Level 4 FTD.

### **2. PILOT TYPE RATING REQUIREMENTS**

The pilot type rating established for the BD-700-2A12 is G7500 and remains unchanged.

### **3. RELATED AIRCRAFT**

Not applicable.

### **4. PILOT TRAINING**

Training Differences: Level A.

**4.1 Experience/Prerequisite.** The PF must be qualified and current on the Global 7500 aircraft.

**4.2 Special Emphasis Areas.**

Not applicable.

**4.3 Flight Training.**

Not applicable.

### **5. PILOT CHECKING**

Checking Differences: Level A.

## **6. PILOT CURRENCY**

Not applicable.

## **7. OPERATIONAL SUITABILITY**

The FSB has found the Global 7500 software version 2.5 upgrade to be operationally suitable under 14 CFR parts 91 and 135.

An operational suitability determination does not constitute an operational authorization.

## APPENDIX 10. GLOBAL 8000 UPGRADE

### 1. BACKGROUND

In January 2026, an FSB was convened to evaluate training, checking and currency requirements for the Global 8000 upgrade and determine operational suitability. The Global 8000 to 7500 differences were also evaluated by analysis. The Global 8000, available as an option update on the Global 7500 or as production baseline (serial 70240, 70250 and subsequent), incorporated flight envelope expansion from M.925 to M.950, thrust increase of up to 7%, fuel volume increase, reduced cabin altitude, Environmental Control System (ECS) flow reduction, and changes to the avionics including automatic ADS selection.

**NOTE:** This appendix does not apply to the Global 7500 unless Service Bulletin (SB) 700-34-7528 has been incorporated.

A joint evaluation by TCCA and EASA was conducted in October 2025. The FAA could not participate in the joint evaluation due to a lapse in funding. Subsequently, the proposed courseware, which included the training program and operations manuals, was evaluated by analysis in November and December of 2025. In January 2026, an FSB convened at the Bombardier Flight Test Center facility in Wichita, Kansas using an engineering cab representing a Level 4 FTD.

### 2. PILOT TYPE RATING REQUIREMENTS

The pilot type rating established for the BD-700-2A12 is G7500 and remains unchanged.

### 3. RELATED AIRCRAFT

Not applicable.

### 4. PILOT TRAINING

Training Differences:

- Global 7500 to 8000: Level C.
- Global 8000 to 7500: Level B.

The Global 8000 to 7500 differences were demonstrated to be Level B training. The differences may be incorporated into an initial or recurrent training program.

**4.1 Experience/Prerequisite.** The PF must be qualified and current on the Global 7500 aircraft.

**4.2 Special Emphasis Areas.** Special emphasis ground training is required for:

4.2.1 ADS Auto Functionalities.

- a) Knowledge of system operation when switching between manual and auto mode.
  - 1) Importance of ADS source manual switching in flight only when directed by checklists.
  - 2) Highlight that manual mode selection by the pilot may place erroneous data on one or both PFDs.
  - 3) Highlight that when ADS manual mode is selected, PF keeps hands on controls to prioritize pitch/thrust and guard against unwanted AT engagement.
  - 4) Reinforce crew discipline and effective CRM, with the Pilot Monitoring communication when manually selecting ADS.
  - 5) Knowledge of FMA indications in auto mode and manual mode.
- b) Limitations associated with Reduced Vertical Separation Minimum (RVSM) airspace, and the number of ADS required.
- c) G8000 RVSM normal limitation requirements and the differences when applying non-normal checklist: Specific non-normal conditions, procedural guidance allowing continued RVSM operations with the only two functioning ADS, providing alleviation from the standard AFM limitation.
- d) RVSM PERF DEGRADED CAS message procedure
- e) Procedures related to Unreliable airspeed/altitude checklist for the new ADS, with emphasis on airspeed.
- f) Procedures related to EFIS MISCOMPARE CAS message.
- g) For all operators, ground training is recommended at Level B training. See Appendix 2 of this document for specific training levels.

### **4.3 Flight Training.**

Not applicable.

The differences may be incorporated into an initial or recurrent training program.

## **5. PILOT CHECKING**

Checking Differences:

- Global 7500 to 8000: Level B.
- Global 8000 to 7500: Level B.

Documented satisfactory completion of ground training exam is sufficient.

## **6. PILOT CURRENCY**

Not applicable.

## **7. OPERATIONAL SUITABILITY**

The FSB has found the Global 8000 to be operationally suitable under 14 CFR parts 91 and 135.

An operational suitability determination does not constitute an operational authorization.

## APPENDIX 11. RUNWAY OVERRUN AWARENESS AND ALERTING SYSTEM (ROAAS)

### 1. BACKGROUND

In January 2026, an FSB was convened to evaluate training, checking, and currency requirements for the added ROAAS functionality in the Bombardier Global 7500/8000 to determine operational suitability. EASA and TCCA previously evaluated ROAAS in October of 2025. The FAA could not participate in that joint evaluation due to a lapse in government funding.

**NOTE:** This appendix does not apply to the Global 7500 unless Service Bulletin (SB) 700-34-7524 and (SB) 700-34-7533 has been incorporated. This appendix applies to all Global 8000 aircraft.

The proposed courseware, which included the training program and Operations Manuals, were evaluated by the FSB at the Bombardier Flight Training Center in Wichita, Kansas.

Additionally, the FSB conducted flights in an engineering cab representing a Level 6 FTD to validate training in a Bombardier Global 8000. Numerous visual approaches were conducted to runway 27 at John F. Kennedy International Airport (KJFK) add to acronym list. Scenarios were utilized to demonstrate the ROAAS system in unusual situations such as unstable approaches, approaches at  $V_{REF}$  plus 20 kts, and landing with runway conditions simulated to Runway Condition Code (RCC) 5 and 6.

In accordance with European Organization for Civil Aviation Equipment (ED-250 Dec 2017), ROAAS is an alerting system designed and intended to reduce the risk of runway overrun. The ROAAS system is a feature of the TAWS system. The main functions of the ROAAS are to:

- Calculate in real-time the distance required to stop the airplane, based on its actual position and energy state during approach and landing.
- Generate alerts when the ROAAS anticipates or detects a potential runway overrun.

These functions are designed to complement the flight crew's situational awareness when the possibility of exceeding the runway end during approach and landing, and assist in the decision making for:

- A go-around/missed approach.
- Application of maximum deceleration on the ground.

Use of ROAAS does not replace pilot actions or alleviate flight crew's responsibilities for managing approach and landing including but not limited to: time-of-arrival landing distance assessment, stabilized approach criteria, flare and landing technique, proper use of deceleration devices or actual braking performance monitoring.

**NOTE:** Applicability - In accordance with EUROCAE (ED-250 Dec 2017), ROAAS is an alerting system designed and intended to reduce the risk of runway overrun and will be required for new large airplane designs and on certain new large airplanes operated in commercial air transportation and manufactured after a predetermined date.

The applicable G7500/8000 will include effectivity box indicating whether the flight deck software version 2.5 update has been incorporated with the following Service Bulletins: (SB) 700-34-7524 and (SB) 700-34-7533. The SB is applicable to aircraft serial number (S/N) 70006 through 70239 and 70241 through 70249. This SB may be incorporated into existing Global 7500 aircraft.

## **2. PILOT TYPE RATING**

The pilot type rating established for the BD-700-2A12 is G7500 and remains unchanged.

## **3. RELATED AIRCRAFT**

Not applicable.

## **4. PILOT TRAINING**

The FSB has determined that the minimum training level is Level B.

In conducting ROAAS operations, specific duties and procedures are assigned to both the PF and PM. Therefore, the requirements for initial, transition, upgrade and recurrent training as defined below are applicable to both PIC and SIC.

**4.1 Experience/Prerequisite.** The PF must be qualified and current on the Global 7500 or Global 8000 aircraft.

### **4.2 Special Emphasis Areas.**

4.2.1 Ground training emphasis on the following:

- a) ROAAS system limitations and disengagement conditions.
- b) Performance calculations related to ROAAS.
- c) Operational procedure: Emphasis on the operational process and the required conditional step as specified in the QRH for non-normal situations:

*Example of QRH step: "If factored ALD plus value below greater than LANDING DIST AVAIL (ROAAS page)".*

**4.3 Flight Training.** Although this difference training does not require FFS training, training providers and operators may consider providing ROAAS training as part of initial, transition, upgrade and recurrent training.

## **5. PILOT CHECKING**

The FSB has determined that the minimum checking is Level B. Satisfactory completion of ground training must be documented.

## **6. PILOT CURRENCY**

Not applicable.

## **7. OPERATIONAL SUITABILITY**

The FSB has found the Bombardier Global 7500 (Global 8000 marketing designation) ROAAS to be operationally suitable under 14 CFR parts 91 and 135.

An operational suitability determination does not constitute an operational authorization.