AVIATION RULEMAKING ADVISORY COMMITTEE (ARAC) MEETING

July 20, 2023 ***1:00 PM – 4:00 PM

- Welcome and Introductions
- Federal Advisory Committee Act (FACA) Statement
- Ratification of Minutes
- Status Updates and Recommendation Reports
  - ARAC
    - Airman Certification System Working Group – Mr. David Oord
      - ❖ Airman Certification System Working Group PTS to ACS Priorities Recommendation
    - Training Standardization Working Group – Mr. Brian Koester
      - ❖ Improving the Instructor and Check Pilot Curriculum Recommendation Report
  - Transport Airplane and Engine (TAE) Subcommittee – Mr. Keith Morgan
    - Flight Test Harmonization Working Group – Mr. Brian P. Lee
      - ❖ Phase 4/Topic 21 – Narrow Runway Operations (Present Recommendation Report to ARAC: 09/2023)
      - ❖ Phase 4/Topic 16 – Failure Assessment Methodology & Evaluation (FAME) (HQRM) (Present Recommendation Report to ARAC: 06/2024)
      - ❖ Phase 4/Topic 33 – Landing Distance on Dry Runway (Present Recommendation Report to ARAC: 6/2024)
    - Ice Crystals Icing Working Group (Present Recommendation Report to ARAC: 2024) – Ms. Melissa Bravin and Mr. Allan van de Wall
  - FAA Updates
    - ❖ New Tasking - Engine & Powerplant Interface Working Group
    - ❖ Regulatory Updates

- Fiscal Year 2023 Meeting Dates
  - Thursday, September 21, 2023

ARAC agendas, meeting minutes, and reports are available on the FAA's committee website at https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/committee/browse/committeeID/1

AVIATION RULEMAKING ADVISORY COMMITTEE
DRAFT RECORD OF MEETING

MEETING DATE: March 16, 2023

MEETING TIME: 1:00 pm - 4:00 pm ET

LOCATION: The Aviation Rulemaking Advisory Committee (ARAC) held a hybrid meeting in person at the FAA Headquarters at 800 Independence Ave, SW, Washington, DC, 20591, in room 10A MacCracken/Huerta Collaboration Room, and virtually on Zoom.

PUBLIC ANNOUNCEMENT: The Federal Aviation Administration (FAA) provided notice to the public of this ARAC meeting in a *Federal Register* notice published on February 24, 2023 (88 FR 11977).

ATTENDEES: **Committee Members**

David Oord (In-person)	Wisk, *ARAC Chair*
Justin Barkowski	American Association of Airport Executives (AAAE)
Michelle Betcher	Airline Dispatchers Federation (ADF)
Doug Carr (In-person)	National Business Aviation Association, Inc. (NBAA)
Tom Charpentier	Experimental Aircraft Association (EAA)
Ambrose Clay	National Organization to Insure a Sound Controlled Environment (N.O.I.S.E.)
Chris Cooper	Aircraft Owners and Pilots Association (AOPA)
Gail Dunham	National Air Disaster Alliance Foundation (NADAF)
Stéphane Flori	Aerospace & Defense Industries Association of Europe (ASD)
Daniel Friedenzohn	Embry-Riddle Aeronautical University
Paul Hudson (In-person)	FlyersRights.org
Randy Kenagy	Air Line Pilots Association (ALPA)
Chris Martino	Helicopter Association International (HAI)
Keith Morgan (In-person)	Pratt & Whitney *Chair, Transport Aircraft and Engine (TAE) Subcommittee*

George Paul	National Air Carrier Association (NACA)
Ric Peri (In-person)	Aircraft Electronics Association (AEA) *Co-Chair, Part 145 Working Group*
Larry Rooney	Coalition of Airline Pilots Association (CAPA)
Yvette A. Rose (In-person)	Cargo Airline Association (CAA)
Chris Witkowski	Association of Flight Attendants (AFA)
Attendees	
Tanya Boisseranc	Boeing
Mel Bravin	Boeing
Antonio Chiesa	Transport Canada Civil Aviation
Cindy Christiansen	Public Citizen
Maryann DeMarco	CAPA
Mary Fox	Boeing
Barley Fields	American Association of State Highway and Transportation Officials
Rob Hackman (In-person)	EAA
Jens Hennig (In-person)	General Aviation Manufacturers Association
Doug Jury	Delta Air Lines *Chair, Transport Aircraft Metallic and Composite Structures Working Group*
Brian Koester (In-person)	NBAA
Brian Lee	Boeing Company *Flight Test Harmonization Working Group Chair*
Justin Madden (In-person)	Airlines for America
Phan Tran	Public Citizen
Darisha Vidrine	FAAST Representative
Darlene Yaplee	Public Citizen
FAA	
Lee Abbott	Flight Standards Service (AFS)
Angela Anderson	Office of Rulemaking (ARM)

Nicole Bartolucci	Office of Aviation Policy & Plans (APO)
Paul Cloutier	AFS
Thuy Cooper	ARM
Thomas Cuddy	APO
Bryan Davis	AFS
Todd Davis	AFS
Colleen Donovan	Aircraft Certification Service (AIR)
Michelle Ferritto (In-person)	ARM
Ramona Fillmore	AFS
Robert Ganley	AIR
Johann Hadian (In-Person)	ARM
Megan Harding (In-person)	ARM
Dan Kelman	AFS
Brian LaCross	AIR
Daniel Leach	APO
Caitlin Locke	AFS
Karen Lucke	AFS
Suzanne Masterson	AIR
Minh Nguyen	Commercial Space Transportation
Abbie Otis	AFS
George Padalec	AFS
Lakisha Pearson (In-person)	ARM
Paul Preidecker	FAA Contractor
Alberto Ramon	APO
Robert Reckert	AFS
Brandon Roberts (In-person)	ARM, *Designated Federal Officer*
Salli Rowe	AFS

James Sapoznik	AIR
Puja Sardana (In-person)	FAA Contractor
Cassandra Simon	ARM
Walter Sippel	AIR
Alan Strom	AIR
Joshua Tarkington	AFS
Patricia Williams	AFS
Alana Zautner	AIR

Welcome and Introduction

Mr. Brandon Roberts, Designated Federal Officer (DFO), called the meeting to order at 1:01 pm ET. He reminded everyone that the meeting was being recorded and reviewed logistics for the hybrid meeting.

Mr. Roberts read the required FACA statement (Title 5, United States Code (5 U.S.C.); Appendix 2 (2007)). He stated that members of the public may address ARAC with permission of the Chair, Mr. David Oord.

Mr. Oord welcomed everyone to the meeting. He asked those attending in-person to introduce themselves and noted that virtual attendance would be recorded using Zoom.

Ratification of Minutes

Mr. Oord asked for a motion to accept the December 8, 2022[1], ARAC meeting minutes. Ms. Yvette Rose motioned to accept the minutes, and Mr. Ric Peri seconded the motion.

All ARAC members voted in favor of ratifying the minutes.

Status Reports/Recommendation Reports

A copy of the March 16, 2023, meeting packet, which includes working group presentations, can be found at:

https://www.faa.gov/regulations_policies/rulemaking/committees/documents/media/ARAC%20Meeting%20Packet%203-16-23.pdf

[1] The December 8, 2022, meeting minutes can be found at: https://www.faa.gov/regulations_policies/rulemaking/committees/documents/media/ARAC%20Meeting%20Packet%203-16-23.pdf.

Airman Certification Systems Working Group (ACSWG)

Mr. Oord, ACSWG Chair, provided the working group's status report. The update included an overview of membership, a summary of tasking, a review of the schedule, the status of tasking, and areas for ARAC consideration.

Mr. Oord stated that the tasking, status, and membership have largely remained the same. He noted that the interim report for Private, Commercial, ATP, and Instructor certificates and Instrument Ratings was submitted in June 2018. Mr. Oord further noted that the group is in a holding pattern due to limitations and hurdles related to incorporation by reference (IBR) and ex parté. He noted that FAA published the Airman Certification Standards and Practical Test Standards for Airmen; Incorporation by Reference Notice of Proposed Rulemaking (NPRM), which did not reflect the substance of the working group's work.

Mr. Oord reviewed the meeting schedule and confirmed that the status of tasking is on hold. Mr. Oord said that the group is awaiting feedback on previously submitted recommendations from FAA before they can continue any work. He stated that the working group will discuss as much information that they can as it pertains to IBR at the upcoming meetings. He noted that the working group is feeling frustration and defeat after putting in a lot of effort to update airmen certification standards and to improve safety only to see that work not reflected in the documents published to the Federal Register.

Ms. Rose asked if the holdup was more of a process or substance issue. Ms. Caitlin Locke, FAA Acting Deputy Executive Director of Flight Standards, addressed Ms. Rose's question by confirming it is a process issue. She recognized the working group's efforts and their frustration. Ms. Locke stated that the FAA intends to take ARAC recommendations into account when updating the ACS. She shared that the FAA was limited by what needed to be adjudicated in the NPRM and the speed to which the agency needed to publish standards along with NPRM for powered-lift.

Mr. Paul Hudson asked for the NPRM RIN (regulation identifier number)[2], and Mr. Oord noted the comment period closed, and he will find and provide the RIN.

Mr. Ric Peri noted that the Part 145 Working Group has an issue with the FAA lacking transparent communications, which extends to other working groups. He asked how communication between the working groups and the FAA can become more transparent and suggested creating a formal recommendation for better communications, including a status update and timeline from the agency after the submission of reports from ARAC working groups. Mr. Hudson agreed and asked members how this motion could move forward. Mr. Peri asked FAA to provide an update at the June meeting about how the agency would propose being more transparent and how better communications can be

[2] The RIN is 2120-AL74.

implemented into the standard procedures of the ARAC charter. Mr. Roberts acknowledged the request and noted that transparency is a theme on FAA's radar.

Training Standardization Working Group (TSWG)

Mr. Brian Koester provided the TSWG's status report. The update included an overview of membership, a summary of tasking, a review of the schedule, the status of tasking, and areas for ARAC consideration, including the recommendation report the group submitted to ARAC. Mr. Koester noted that proposed replacements have been submitted for members who have left or retired.

Mr. Koester stated that the group meets quarterly and may submit ad hoc recommendation reports, including continuous improvements to standardized curricula, via ARAC to the FAA for review and consideration at any time. He described the following taskings:

- Recommend a detailed master schedule for the development of part 135 standardized curricula for each aircraft or series of aircraft;
- Develop and recommend a standardized curriculum to qualify training center instructors and evaluators (check pilots) to provide part 135 training, testing, and checking;
- Develop and recommend part 135 standardized curricula for each aircraft or series of aircraft, including the maneuvers, procedures, and functions to be performed during training and checking;
- Recommend continuous improvements to each part 135 standardized curriculum for a specific aircraft or series of aircraft; and
- Develop reports containing recommendations for standardized curricula and results of the tasks listed here.

Mr. Koester noted that the working group met the deadlines for both the initial recommendation report (proposed master schedule for standardized curriculum development) and the addendum recommendation report (standardized curriculum to qualify training center instructors and check pilots to provide part 135 training, testing, and checking). He reviewed the tentative schedule of deliverables for recommendations:

- June 2023:
    - Hawker 800
    - Citation Excel
- September 2023:
    - King Air 300
    - Challenger 300

Mr. Koester summarized the following areas for ARAC consideration:

- New Action Teams:

  - BE-300 King Air Action Team
  - CL-30 Challenger 300 Series Action Team
- G-V Action Team will reconvene to recommend Course 3 (adaptive recurrent)
- New sections in the Dynamic Regulatory System updated to include:
  - Aircraft Master Schedule
  - Aircraft-Specific Standardized Curriculum
  - Instructor/Check Pilot Qualification Curriculum

Mr. Oord asked if there was any feedback from the industry on G-V, and Mr. Koester said no because training on the G-V curriculum has not been implemented, and he estimated 6-9 months before the first pilot is fully trained using it.

Mr. Peri asked if the structure the group is using could be a template for remote pilots in the future, and Mr. Koester said the same process could possibly be used, but he is uncertain as this would be a large expansion of the current scope of their work. Mr. Oord agreed, noting it is too early to consider this as it may apply to remote pilots in the future.

Mr. Koester described the following recommendations in the group's report:

- *5.1 Recommendation on Adaptive Recurrent Training*
- *5.2 Recommendation on Training Circling Approaches*
- *5.3 Recommendation on Grouping Approaches*
- *5.4 Recommendation on Grading*
- *5.5 Recommendation on the Standardized Curriculum Aircraft/Simulator Training Matrix*
- *5.6 Recommendation to Improve the G-V Curriculum*
- *5.7 Recommendation on Part 135 Checking Modules – Airplanes*
- *5.8 Recommendation to Improve the Instructor and Check Pilot Qualification Master Curriculum*

Mr. Hudson asked how much of the training is in-person, remote, and if remote, how interactive it is. Mr. Koester noted that a standard is not specified; however, the report includes a couple of optional footprints. He said that the recommendations allow opportunities for pilots to gain the same knowledge and be able to demonstrate the same level of proficiency through flexible training options.

Mr. Larry Rooney thanked Mr. Koester for his update and asked what analysis determined the grading system. Mr. Koester noted that objective criteria of the grading system is included in a matrix in the report.

Mr. Hudson noted that, on several occasions, circling approaches have not been safely executed, and it is an important issue that needs to be addressed.

Mr. Koester noted a few typos and opportunities for improvement in the report, which would not change any substance. He stated that the report had no dissenting opinions.

Mr. Oord asked for a motion to accept the recommendation report. Ms. Rose motioned to accept the report, and Mr. Morgan seconded the motion. All ARAC members voted in favor of accepting the recommendation report.

Part 65.101 Repairman Certificate Portability Working Group

Mr. Peri provided the Part 65.101 Repairman Certificate Portability Working Group report update, stating that the group meets regularly and nothing has changed since their last report. He noted that the working group plans to submit the interim report before the next ARAC meeting.

Transport Airplane and Engine (TAE) Subcommittee

Mr. Keith Morgan, the TAE Subcommittee Chair, provided the subcommittee status report update. He reviewed membership and stated that there are currently three active TAE Subcommittee working groups: Flight Test Harmonization (FTH), Transport Airplane Metallic and Composite Structure (TAMCS), and Ice Crystal Icing (ICI).

Mr. Morgan reviewed the schedule of regular quarterly meetings and the following schedule of deliverables:

March 2023
- •TAMCSWG Crack Interaction

June 2023
- •FTHWG Dry Runway
- •EICIWG Interim report

September 2023
- •FTHWG Narrow Runway

Flight Test Harmonization Working Group (FTHWG)

Mr. Morgan stated that the working group has been working on phase 4 of the tasking. He described a breakdown of the tasks and how the work is being delegated. Mr. Morgan reviewed the schedule, described the tasking, and stated that the status is on track. He noted that the working group's work should be closed out around the middle of 2024, and they do not need anything from ARAC at this time.

Ice Crystals Icing Working Group (ICIWG)

Mr. Morgan reviewed the ICIWG membership and the summary and status of tasking. He noted that the working group has regular meetings and is making good progress. Mr. Morgan reviewed the schedule noting the working group intends to submit the final report by the end of 2024. He stated that there are no areas for ARAC consideration at this time.

Transport Aircraft Metallic and Composite Structures Working Group (TAMCSWG)

Mr. Morgan provided an overview of the TAMCSWG status report, reviewing membership, tasking, and schedule. Mr. Morgan summarized the original tasking and described the extended topics that were added. He asked Mr. Jury, the TAMCSWG Chair, to brief ARAC on the recommendation report.

Mr. Jury summarized the report, the background of the tasking, and the workflow process the working group used to review content and reach a consensus. Mr. Jury explained each of the following five recommendations, including rationale for each:

1. Does not recommend any changes to the regulations as the existing text is sufficiently performance-based. However, additional changes to guidance would help ensure clarity of the text.
2. Revise AC 25.571-1D:
    a. to add text on considering crack interaction in a Damage Tolerance Evaluation (DTE), and
    b. to add a definition for crack interaction.
3. Examples of crack interaction should not be included in the revised AC 25.571-1D.
4. Examples of methods of compliance should not be included in the revised AC 25.571-1D (too prescriptive).
5. FAA should not task a Standard Developing Organization to further address crack interaction.

Mr. Jury described each section of the report, the analysis involved, and any dissenting opinions. He noted that he would like to issue a minor grammatical revision and that this is the last report for the working group.

Mr. Oord asked if there was a motion to accept the report. Mr. Peri motioned to accept the recommendation report, and Mr. Jury seconded the motion.

Mr. Hudson asked if the working group specifically discussed cracking in 787 wings and engines. Mr. Jury said that they did not get into major structures such as a 787 wing, and the tasking is not material specific but noted that in generally speaking terms, ‘crack interaction’ applies to metallic and composite structures. Mr. Hudson asked to confirm that the working group is not looking for any further rulemaking. Mr. Jury noted the recommendations in the working group’s report are largely to complement existing

rulemaking. Mr. Hudson suggested this is in line with self-regulation, and Mr. Jury suggested that performance-based rulemaking currently exists.

Mr. Chris Witkowski asked about exemption inspection intervals, and Mr. Jury stated that there is existing guidance for exemption programs.

Mr. Ambrose Clay stated that he appreciated the inclusion of dissenting opinions, but was concerned that only one-third of the group represented operators (as opposed to manufacturers). Members discussed representation and consensus within these kinds of groups. Mr. Peri suggested each group generally ends up having a minority and a majority representation and opinion.

Mr. Oord thanked the working group and asked ARAC to vote on accepting the report. Mr. Hudson and Mr. Witkowski opposed; Mr. Clay abstained; and all other members voted in favor. The report was approved and will be forwarded to the FAA after Mr. Morgan fixes any grammatical errors. This report would close out the tasking for the TAMCSWG.

Other Business and FAA Updates

Responses to ARAC Recommendations

Mr. Roberts thanked ARAC working groups for including dissenting opinions in their work because the FAA reads and considers those. He noted that he will work with the agency to encourage the theme of transparency. Mr. Roberts noted that ARAC has submitted approximately 27 recommendation reports over the past year, which are available on the FAA committee website. He reported how the FAA intends to respond to the following ARAC recommendations.

- TAMCSWG – In response to ARAC's recommendation on Single Load Path, the FAA intends to the guidance material.
- FTHWG – The FAA plans to update Advisory Circular 25.7 (Flight Test Guide for Certification of Transport) and other recommended ACs beginning this fiscal year. The FAA is also considering the recommendations related to rulemaking.
- TSWG – The FAA has published the G-V and Instructor curriculums.

Mr. Roberts that the FAA will continue to provide updates at future ARAC meetings.

Regulatory Updates

Mr. Roberts noted that the following rules have published since the December 2022 meeting:

- Prohibition Against Certain Flights in the Territory and Airspace of Somali Final Rule published on December 27, 2022, and became effective the same day.

- Airman Certification Standards and Practical Test Standards for Airmen; Incorporation by Reference NPRM published on December 12, 2022, and the comment period closed on February 10, 2023.

- Safety Management Systems NPRM published on January 11, 2023. Comment period closes on April 11, 2023, which is now extended to April 24, 2023.

- Airport Safety Management Systems, Final Rule, published on February 23, 2023, and will be effective on April 24, 2023.

- Normal and Transport Category Rotorcraft Certification Final Rule published on February 10, 2023, and becomes effective April 11, 2023.

Mr. Roberts provided a status update for the Powered-Lift rulemaking project, and he announced that the Fall 2022 Unified Agenda published on January 4, 2023.

Mr. Peri asked about the congressional mandate to address Change Product Rule (CPR) and suggested referring to minutes from the associated ARC or ARAC, and Mr. Roberts thanked him for that suggestion.

Mr. Hudson asked if there was any update with emergency evacuation. Mr. Roberts confirmed the FAA is still reviewing the comments that came in response to the request for comments and the agency needs to confirm a path forward.

Mr. Tom Charpentier asked if the Modernization of Special Airworthiness (MOSAIC) rulemaking was on track for a summer publication. Mr. Roberts noted that a timeline was never confirmed, and a date should be published in the Spring Unified Agenda.

Mr. Justin Madden asked for A4A representation on ARAC and asked how industry could get involved in the membership process. Mr. Roberts noted that DOT regulates membership, so any issues on membership and alternates go above FAA. Ms. Rose asked when the current term for chair expires and if a vice-chair would be appointed, and Mr. Roberts noted that information would be available when the membership packet is complete.

Adjournment

Mr. Oord stated that the June meeting may get rescheduled due to a conflict with the EASA-FAA International Aviation Safety Conference, and ARAC will be kept posted on this matter. Mr. Oord thanked everyone, and he adjourned the meeting at 3:40 pm ET.

Airman Certification System Working Group
Status Report to the Aviation Rulemaking Advisory Committee

David Oord
Working Group Chair

July 20, 2023

MEMBERS of ACSWG - INDUSTRY

- David Oord, Wisk
- Paul Alp, Jenner & Block
- Cindy Brickner, SSA
- Paul Cairns, ERAU
- Kevin Comstock, ALPA
- Mariellen Couppee, Independent
- Eric Crump, Polk State College
- David Dagenais, FSCJ
- Maryanne DeMarco, CAPA
- Rick Durden, Independent
- Megan Eisenstein, NATA
- David Earl, Flight Safety
- Tom Gunnarson, Wisk
- John Hazlet Jr., RACCA
- Jens Hennig, GAMA
- Chuck Horning, ERAU
- David Jones, Avotek
- John King, King Schools
- Janeen Kochan, ARTS Inc.
- Kent Lovelace, UND
- John McWhinney, King Schools
- Crystal Maguire, ATEC
- Nick Mayhew, L3
- Jimmy Rollison, Independent
- Mary Schu, Mary Schu Aviation
- Roger Sharp, Independent
- Jackie Spanitz, ASA
- Burt Stevens, CFI Care
- Robert Stewart, Independent
- Tim Tucker, Robinson
- Donna Wilt, SAFE
- Roger Woods, Leonardo
- Philipp Wynands, Metro Aviation

MEMBERS of ACSWG – FAA SMEs

- Barbara Adams
- Bill Anderson
- Dennis Byrne
- James Ciccone
- Bryan Davis
- Joel Dickinson
- Mike Duffy
- Troy Fields
- Ramona Fillmore
- Adam Giraldes
- Laurin J. Kaasa
- Jeffrey Kerr
- Ricky Krietemeyer
- Karen Lucke
- Mike Millard
- Anne Moore
- Kevin Morgan
- Margaret Morrison
- Richard Orentzel
- Katie Patrick
- Andrew Pierce
- Robert Reckert
- Jason Smith
- Chris Thomas
- Shelly Waddell Smith
- Jeff Spangler
- Robert Terry
- Chris Thomas
- Matt Waldrop
- Stephanie Williams
- Bill Witzig
- Jimmy Wynne
- Christopher Yanni

SUMMARY OF TASKING

- Provide recommendations regarding standards, training guidance, test management, and reference materials for airman certification purposes.
- Continuation of Pilot, Instructor, and Aircraft Mechanic certificates.
- Revisions for Private, Commercial, Remote Pilot certificates and the Instrument Rating.
- Added Sport and Recreational Pilot certificates – airplane.
- Added Private, Commercial, ATP, and Instructor certificates and Instrument Rating in additional aircraft categories–
    - Rotorcraft, powered lift, lighter-than-air, glider, etc.

SCHEDULE

- Interim reports
  - PVT, COM, ATP, Instructor, and AMT certificates and Instrument Rating – no later than June 2018 - complete
- Final recommendation report TBD
  - Unable to complete due to incomplete taskings and restrictions

SCHEDULE

- **2023 Meetings –**
  - April 18 (virtual meeting)
  - September 19-21 (TBD)

STATUS OF TASKING

- Progress on Standards, Guidance, and Test Management on hold
  - Publication of completed ACS documents waiting on Incorporation by Reference (IBR) rulemaking
  - In response to Congressional requests made in H.R. 133-1160, Call to Action Final Report submitted May 2022, Data Analysis workgroup formed in February 2023
    - Means for ongoing data evaluation based on ACS codes, knowledge test reports, and practical exam reports for the purpose of ongoing improvement and collaboration between training and testing and to support emerging technologies.
  - FAA and working group leads met and exploring options to move forward
    - Guidance materials
    - ACS prioritization - ACS WG Leads prepared priority list for PTS to ACS transition, and ongoing maintenance of existing ACS, following IBR publication.
    - Pathways, process, and engagements going forward

Aviation Rulemaking Advisory Committee

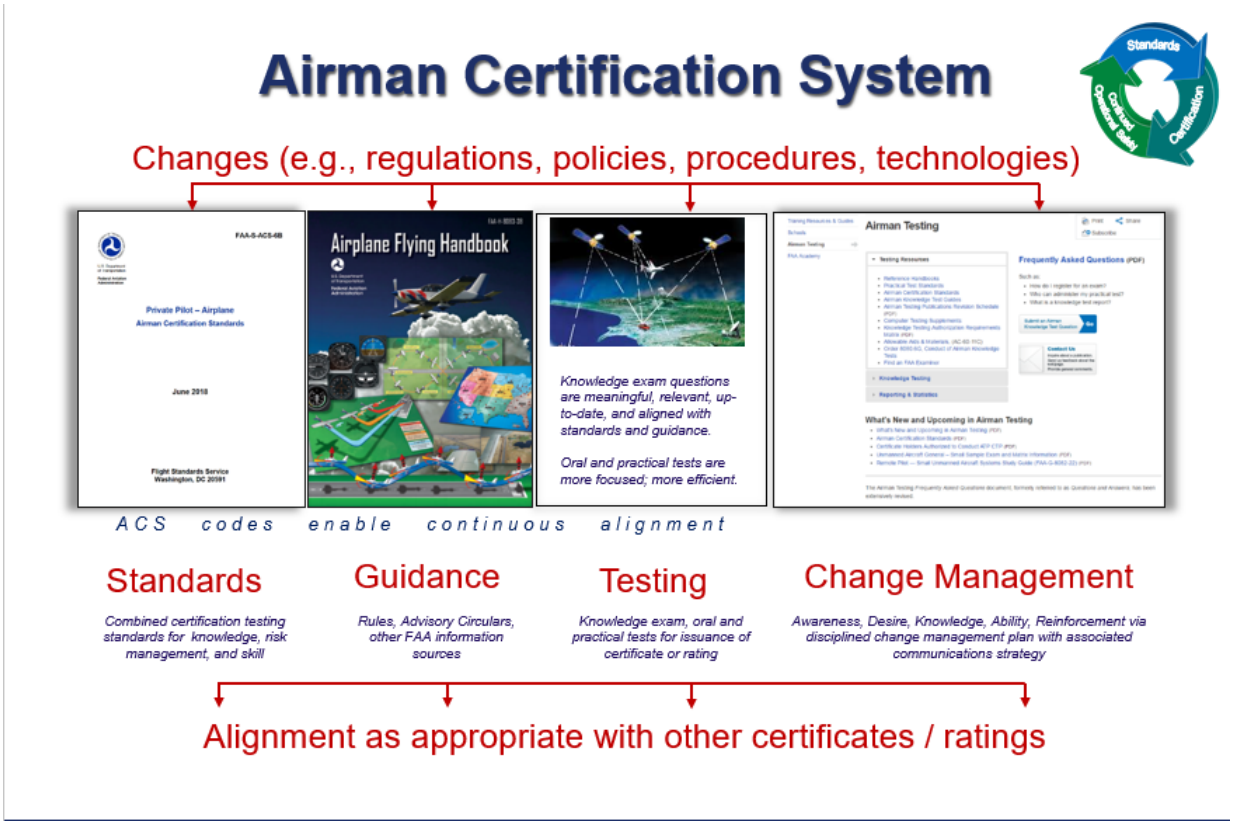
Airman Certification System Working Group

PTS to ACS Priorities Recommendation

TO: David Oord, ACS Working Group Chair
FROM: Jackie Spanitz, ACS Work Group Lead
SUBJECT: Priorities for transitioning PTS to ACS
DATE: July 12, 2023

On behalf of the Airman Certification System Working Group (ACSWG) Leads, I submit this recommendation to the Aviation Rulemaking Advisory Committee (ARAC) for consideration.

The working group leadership has developed the following list, which prioritizes the transition from Practical Test Standards (PTS) to Airman Certification Standards (ACS), as well as updates for the existing ACS already in effect. This list is based on applicant volume and in consideration of need for updated FAA standards given today's equipment, rules, procedures and impact on the safety within the National Airspace System (NAS). Additionally, the corresponding Handbooks are identified so these can be developed alongside the ACS. This will ensure the ACS system is followed as intended:



These lists can serve as a basis for both the FAA and industry to focus our limited resources to accomplish the task. We encourage the agency to utilize industry as much as practical and leverage the ACS structure and subject matter expertise, alongside the established FAA development processes supported with the Call to Action recommendations . We collectively look forward to framing out the remaining components of the airman certification system and work together to maintain and improve it.

Aviation Rulemaking Advisory Committee

Airman Certification System Working Group

PTS to ACS Priorities Recommendation

ACS Update Priorities: Review Federal Register Incorporation by Reference (IBR) comments in developing the new editions.

ACS	Last Updated (prior to IBR)	Affected Handbooks	Comments
ACS-15 Private Helicopter	2005, 2013	8083-21	
ACS-14 Instrument Helicopter	2010, 2013	8083-21	
ACS-16 Commercial Helicopter	2013	8083-21	
ACS-29 CFI Helicopter	2013	8083-21	
ACS-20A ATP Helicopter	1998, 2016	8083-21	
ACS-3 Instrument Powered Lift	NA	8083-25	Need a Powered Lift Handbook
ACS-2 Commercial Powered Lift	NA	8083-25	Need a Powered Lift Handbook
ACS-27 Private Balloon	1996	8083-11	
ACS-28 CFII Powered Lift	NA	8083-25, 8083-9, 8083-15	Need a Powered Lift Handbook;
ACS-17 ATP Powered Lift	NA	8083-25	Need a Powered Lift Handbook
ACS-6C Private Airplane	2019	8083-1, 8083-3, 8083-25	
ACS-8C Instrument Airplane	2019	8083-15, 8083-16	
ACS-7B Commercial Airplane	2018, 2019	8083-3	
ACS-25 CFI Airplane	2012, 2018	8083-25, 8083-9	
ACS-11A ATP Airplane	2019		
ACS-10B Removed/Unmanned	2018	8082-22	Need a Remote Pilot Handbook
ACS-1 Aviation Mechanic	2022	8083-30, 8083-31, 8083-32	

PTS to ACS Conversion Priorities

PTS	Last Updated (prior to IBR)	Affected Handbooks	Comments
8081-9E, CFII Airplane and Helicopter	2010, 2014	8083-9, 8083-15, 8083-16	
8081-10E, Aircraft Dispatcher	2013, 2018		Many applicants, international reach
8081-17A Private Balloon & Airship	1996	8083-11	
8081-18A Commercial Balloon	1997	8083-11	
8081-22A, Private Glider	1999, 2010	8083-13A	
8081-23B Commercial Glider	2006, 2014	8083-13A	
8081-8C CFI Glider	2006	8083-13A	
8081-15B Private Gyro	2005, 2013	8083-21 (need gyroplane Hdbok)	Building on ACS-15
8081-16C Commercial Gyro	2013	8083-21 (need gyroplane Hdbok)	Building on ACS-16
8081-7C CFI Gyro	2006, 2016	8083-21 (need gyroplane Hdbok)	Building on ACS-29
8081-29A Sport Airplane, Gyroplane, Glider, CFI	2004, 2014	8083-3, 8083-11, 8083-21, 8083-9	
8081-32A, Private Wt Shift & Pow Para	2004, 2017	8083-29, 8083-5	
8081-30A Sport Balloon	2014	8083-11	
8081-31A Sport Wt Shift & Pow Para	2017	8083-29, 8083-5	
8081-3B Recreational Airplane	2006		
8081-25C Parachute Rigger	2012		Very few applicants
8081-21A Flight Engineer	1999, 2018		Very few applicants

Training Standardization Working Group
Status Report to the
Aviation Rulemaking Advisory Committee

July 20, 2023

MEMBERS of Training Standardization Working Group

Thomas	Benvenuto	Solairus Aviation
Stephen	Bragg	Executive Jet Management
Greg	Brown	Helicopter Association International
Gene	Copeland	Jet Aviation
~~Fabiano~~ Fabricio	~~Cypel~~ Oliveira de Toledo	Embraer
Jon	Dodd	Coalition of Airline Pilots Associations
~~Steve~~ Brian	~~Hall~~ Small	FlightSafety International
Aimee	Hein	CAE, Inc.
Jens	Hennig	General Aviation Manufacturers Association
Brian	Koester*	National Business Aviation Association
Doug	Carr	National Business Aviation Association
Todd	Lisak	Air Line Pilots Association
Steve	Maloney	Sun Air Jets
Allan	Mann	Wheels Up, LLC
John	McGraw	National Air Transportation Association
Brian	Neuhoff	Airbus Helicopters
Janine	Schwahn	Summit Aviation, Inc.
Annmarie	Stasi	Northwell
Daniel	Von Bargen	Pilot
~~Mike~~ Matt	~~Walton~~ Zeimen	Textron

FAA Partners
Josh Tarkington
Paul Preidecker
Shannon Salinsky
James Sapoznik
Kristin Tullius

* *Training Standardization Working Group Chair*

SUMMARY OF TASKING

1) The Training Standardization Working Group (TSWG) will provide advice and recommendations to the ARAC on the most effective ways to standardize curricula provided by training centers. The group is tasked with the following:

2) Recommend a detailed master schedule for the development of part 135 standardized curricula for each aircraft or series of aircraft;

3) Develop and recommend a standardized curriculum to qualify training center instructors and evaluators (check pilots) to provide part 135 training, testing, and checking;

4) Develop and recommend part 135 standardized curricula for each aircraft or series of aircraft, including the maneuvers, procedures, and functions to be performed during training and checking;

5) Recommend continuous improvements to each part 135 standardized curriculum for a specific aircraft or series of aircraft; and

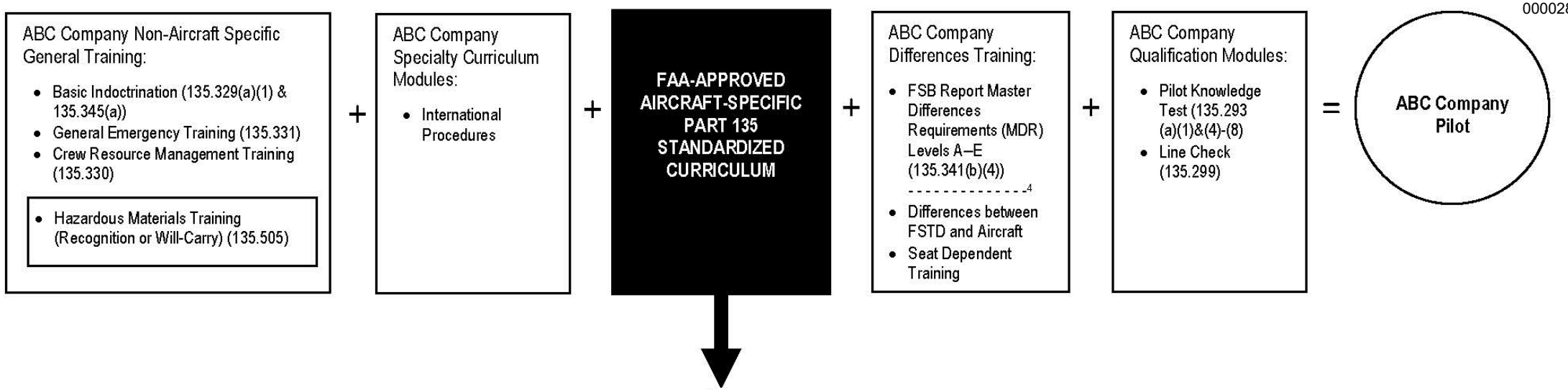
6) Develop reports containing recommendations for standardized curricula and results of the tasks listed here. The group should review any relevant materials to assist in achieving their objective, including FAA Advisory Circular 142-1,2 Standardized Curricula Delivered by Part 142 Training Centers.

SCHEDULE

- ✓June 2021 – Deadline for submitting initial recommendation report including the proposed master schedule for standardized curriculum development to ARAC. The deadline to submit the interim report to the FAA is June 30, 2021.
- ✓ December 2021 – Deadline for submitting the addendum recommendation report, including a standardized curriculum to qualify training center instructors and check pilots to provide part 135 training, testing, and checking to ARAC. The deadline to submit the interim report to the FAA is December 31, 2021.
- The Training Standardization Working Group may submit ad hoc recommendation reports, including continuous improvements, to standardized curricula, via ARAC to the FAA for review and consideration at any time.
- The voting members of the TSWG meet quarterly
- Aircraft Specific Action Teams meet weekly

STATUS OF TASKING

- Tasking 1 (schedule) and 2 (instructor curriculum) are complete.
  - The FAA is making revisions to the instructor curriculum
- Anticipate recommendations:
- September 2023:
  - Hawker 800
  - Citation Excel
- December 2023:
  - King Air 300
  - Challenger 300



What does the Aircraft-Specific Part 135 Standardized Curriculum *portion* include (what's in the box—*which curriculum segments are inside the box*)?

Aircraft-Specific Part 135 Standardized Curriculum:
(Note: Aircraft Ground Training & Flight Training Segments under current Definitions.)[1]

- Aircraft-Specific Ground Training/Aircraft Systems (135.345(b))
- Flight Training (135.347)[2]
- SOPs
- Profiles (Maneuvers) (135.327(b)(3))
- Checklists (OEM or developed by SMEs)
- Aircraft-Specific Qualification Modules (Testing/Checking)[3]
  - Pilot Testing: 135.293(a)(2)&(3)
  - Proficiency Check: 135.293(b)
  - Instrument Proficiency Check: 135.297

- Instructors/Check Airman (Evaluators) qualified by the 142 Training Center in accordance with 135.337 through 135.340 to deliver training, testing & checking under Aircraft-Specific Part 135 Standardized Curriculum.

TSWG Aircraft Type Action Team Tasks:

Action Team:	Team Lead	Participants:

1. Conduct a review and analysis of the assigned tasks and any other related materials or documents.
   - Review TNA
   - Review FSBR
   - Review relevant OpSpecs/MELs
   - Review existing 142 training programs
2. Perform malfunction equivalency exercise.
3. Based on the templates and best practices established by the TSWG Develop and recommend the following curricula, including planned hours, for each aircraft fleet:
   - Initial New Hire,
   - Standard Recurrent,
   - Requalification,
   - Upgrade Recurrent, and
   - Adaptive Recurrent Training.
4. Each Type Specific Action Team will develop the following based on the templates and best practices established by the TSWG, to be used throughout the standardized training program and during normal operations:
   - SOPs
   - Call outs
   - Checklists
5. Draft and submit the recommendation report based on the assigned tasks.
6. Present the recommendation report at the TSWG meeting.
7. Provide continuous improvement for the standardized curriculum based on recommendations from the TSWG.

TSWG CE-560 XL Action Team Progress:

100%	Type Specific Training Needs Analysis	• Remove baseline LOs that do not apply to type. Add Type specific LOs from FSB report.
100%	FSB Reports	• Review Pilot Training and Special Emphasis Items • Add associated learning objectives
100%	Malfunction Equivalency	• Follow the ICAO Delphi process to determine which abnormal and emergency procedures will be taught in ground school, systems integration, and simulator sessions
0%	OpSpec Review	• Determine Specialty courses required as part of SC package Finalize front matter verbiage
70%	Populate Training Plan	• Determine planned hours for each ground module and structure ground curriculum segment • Allocate tasks to systems integration and sim sessions
90%	SOPs	• Determine Call Outs • Determine SOPs • Determine Checklists

STANDARDIZED CURRICULUM
SAFETY • CONSISTENCY

TSWG HS-125 Action Team Progress:

100%	Type Specific Training Needs Analysis	• Remove baseline LOs that do not apply to type. Add Type specific LOs from FSB report.
100%	FSB Reports	• Review Pilot Training and Special Emphasis Items • Add associated learning objectives
100%	Malfunction Equivalency	• Follow the ICAO Delphi process to determine which abnormal and emergency procedures will be taught in ground school, systems integration, and simulator sessions
0%	OpSpec Review	• Determine Specialty courses required as part of SC package Finalize front matter verbiage
70%	Populate Training Plan	• Determine planned hours for each ground module and structure ground curriculum segment • Allocate tasks to systems integration and sim sessions
90%	SOPs	• Determine Call Outs • Determine SOPs • Determine Checklists

AREAS of ARAC CONSIDERATION

- New Action Teams:
  - BE-300 King Air Action Team
  - CL-30 Challenger 300 Series Action Team
- FAA is working to publish guidance for Adaptive Recurrent Training
- Reviewing methods to expedite the recommendation process

RECOMMENDATION(S)

4.1 Recommendation to Improve the Instructor and Check Pilot Qualification Master Curriculum

The Training Standardization Working Group recommends the FAA revise Standardized Curriculum Instructor and Check Pilot Qualification Master Curriculum with the following technical corrections and improvements.

DISSENT(S)

- None.

Transport Aircraft and Engines Subcommittee Status Report to the Aviation Rulemaking Advisory Committee

Keith R. Morgan
Subcommittee Chair

20 July 2023

Members of the Transport Aircraft and Engines Subcommittee

Pratt & Whitney

ALPA

A4A

ASD

Airbus

Boeing

GAMA

AIA

NADA/F

Embraer

SRCA

TAE Meeting Schedule

- 2023 Meetings
  - January 24
  - April 25 (planned face-to-face Seattle)
  - August TBD
  - October 24 (planned face-to-face Washington DC)

Active Working Groups

- Flight Test Harmonization
- Engine Ice Crystal Icing

Look Ahead Report Submittal Schedule to ARAC

September 2023

- FTHWG Dry Runway

December 2023

- FTHWG Narrow Runway

Flight Test Harmonization Working Group Status Report to the Transport Aircraft and Engines Subcommittee of the Aviation Rulemaking Advisory Committee

Brian P. Lee, Boeing

Laurent Capra, Airbus

Working Group Co-Chairs

25 April, 2023

MEMBERS of
Flight Test Harmonization Working Group Phase 4

Authorities	OEM's			Observers
FAA ~~Bob Stoney~~ Joe Prickett Troy Brown (sponsor)	Airbus Philippe Genissel + SME's	Embraer Murilo Ribeiro + SME's	ATR Matthieu Ollivier Jean-Pierre Marre +SME's	JCAB (Japan) Shinsuke Yamauchi CAAI (Israel) Yshmael Bettoun
EASA Matthias Schmidt Lorenzo Prieto Saiz	Boeing Brian Lee (Acting) Ryan Westbrock + SME's	Gulfstream Mike Watson +SME's	Airbus Canada Joel Boudreault +SME's	Norwegian Airlines John Lande Operations SME David Anvid
Transport Canada Lee Fasken	Bombardier Tony Spinelli +SME's	Textron Kurt Laurie +SME's	DeHavilland Canada Eric Herrmann +SME's	Centre d'Essais en Vol (DGA) Matthieu Buisson **Operators**
ANAC (Brazil) Marcos Carvalho	Dassault Philippe Eichel +SME's			ALPA John Cinnamon Josh Larson

Status of Working Group Activities

- Back in step
  - Quarterly face-to-face meeting (two in Europe, two in North America)
  - Weekly scheduled telecons
- Additional working meetings
  - Dry Runway Stopping is meeting weekly IN ADDITION to finish consensus
  - Subteams of FAME are meeting regularly (IN ADDITION) in support larger group

STATUS OF TASKING

- Work is under way on 5 topics:
  - FAME (how to deal with failures affecting Handling Qualities)
  - Narrow Runway Certification (at risk: requesting extension (ARAC in December))
  - Dry Runway Braking (Requesting Extension to finish (Now: ARAC in September))
  - Reduced/Derated Thrust Takeoff Procedures (Discussions have begun)
  - Landing Distance for Abnormal Configurations (Discussions have begun)

- ASHWG: (Discussions have begun, plan to deliberate via e-mail)
  - Low Energy Alerting
    - There will be fall-out from the ASHWG Recommendation
      - FTHWG Phase 2 recommended
        - Low Energy Alerting for all phases of flight only for neutral-stability configurations
      - ASHWG recommends
        - Low Energy Alerting only for close-to-ground for all configurations

Phase 4 FTHWG Topic Technical Status (1 of 3)

- Topic #16 Failure Assessment Methodology & Evaluation (FAME)
  - Now fully engaged (including good interaction with System Safety SME's) making progress
  - 2 sub-teams chartered and meeting regularly
    - Recommend Consistent Flight Envelope for failure evaluations
    - Recommend Consistent Environmental Conditions for failure evaluations
  - Challenge: CATA is working 25.672
    - We have generated specific questions, and have a mechanism to communicate with CATA now in place. Questions have been wordsmithed, now ready for transmittal to CATA
  - Another Challenge: NPRM FAA-2022-1544 released 8 December, 2022 is not harmonized with EASA
- Topic # 21 Narrow runway operations
  - Team has converged on the definition a "baseline" runway, and the "regulatory hook" for declaration of runway width
  - The anticipate a protracted discussion regarding System Safety which will put the topic schedule at risk has surfaced: recommend an extension: TAE in October; ARAC December, 2023

Phase 4 FTHWG Topic Technical Status (2 of 3)

- Topic # 33 Landing Distance on Dry Runway (dispatch, not TALPA) Note: This is a harmonization task, not a safety issue.
  - All technical issues to maintain dry runway landing dispatch limitations using harmonized methodology to compute operationally achievable, physics-based landing performance have been agreed. No Dissenting Opinions.
    - The team has become bogged down with reviewing the report via “extra” telecons every week (in addition to our normal weekly schedule)
  - Therefore, we have decided to put this topic on the agenda for the in-person meeting with the goal that it be finished at the end of the week in June.
  - This is too late for the June ARAC, so we now propose TAE in July; ARAC in September.

However…

  - When the Dry Runway Stopping report is finished, we really should re-open Topic 9, Wet Runway Stopping, and Topic 31, TALPA reports and modify to ensure that all are consistent…Consider this (consistency issue) appropriate as a new topic during the next phase.

Phase 4 FTHWG Topic Technical Status (3 of 3)

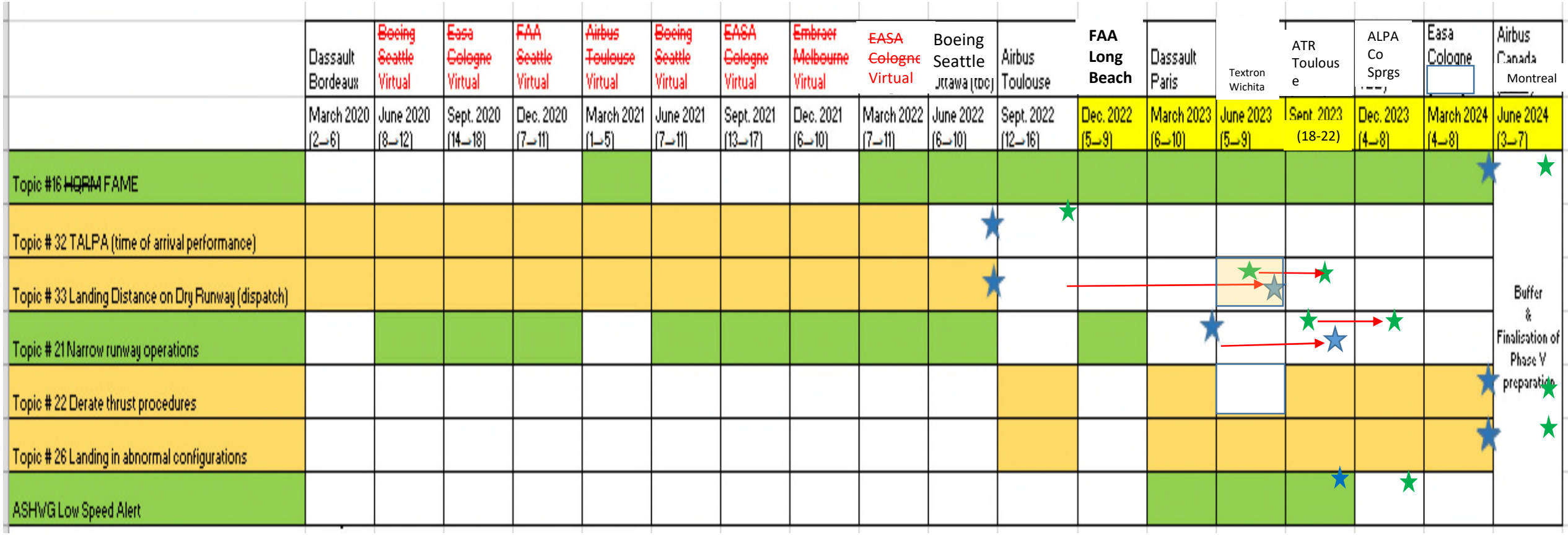
- Topic # 22 Landing in Abnormal Configurations Kickoff in September in Toulouse
  - Progressing on schedule
- Topic # 26 Derate Thrust Procedures Kickoff in September
  - Progressing on schedule

FTHWG Phase 4 Meeting Plan

000047

Delivery to TAE, Blue Stars

Delivery to ARAC in following quarter, Green Stars



Mostly HQ Specialists

Mostly Performance Specialists

AREAS for ARAC CONSIDERATION

- EASA is encountering budgetary challenges
  - Limits the specialists travel:
  - Asking for Webex at in-person meetngs, which we know increases costs to hosts and generally slows down productivity
- We would like to encourage EASA to support this activity across necessary disciplines (as other members are)

Ice Crystal Icing Working Group Status Report Transport Aircraft and Engines Subcommittee

Melissa Bravin
Allan van de Wall
Working Group Co-Chairs

25 April 2023

ICI Working Group Membership

No Change

Member Name	Organization	Role
Philip Haberlen	(FAA-ANE Standards) FAA Representative	FAA Representative
Melissa Bravin	Boeing Commercial Airplanes	WG Co-Chair – Airplane – P
Allan van de Wall	GE Aviation	WG Co-Chair – Engine – P
Aaron Cusher	Collins	Other – P
Adam Malone	Boeing	Consultant
Alberto Ramon	FAA	Non-voting role
Ashlie Flegel	NASA	Consultant
Bob Hettman	FAA	Non-voting role
Bryan Lesko	Air Line Pilots Association	Other – P
Daijiro Kawakami	JCAB	Non-voting role
Dan Fuleki	National Research Council Canada	Consultant
David Dischinger	Honeywell	Engine – P
David Johns	TCCA-probes	Non-voting role
Doug Bryant	FAA	Non-voting role
Eric Duvivier	EASA	Non-voting role
Eric Fleurent-Wilson	TCCA-engines	Non-voting role
Fausto Enokibara	ANAC	Non-voting role
Jeanne Mason	FAA	Consultant
Jim Loebig	Rolls-Royce	Engine – P

Member Name	Organization	Role
John Fisher	FAA	Non-voting role
Jon Saint-Jacques	A4A/Atlas Air	Other – P
Josh Larson	Air Line Pilots Association	Other - P
Julien Delanoy	EASA	Non-voting role
Jun Izumi	JCAB	Non-voting role
Keith Morgan	Pratt & Whitney	ARAC Representative
Keith Wegehaupt	Honeywell	Engine – P
Mauricio Caio Rosin	TCCA	Non-voting role
Philip Chow	FAA	Consultant
Pierre-Emmanuel Arnaud	Airbus	Airplane – P
Rajeev Atluri	AeroSonic	Other - P
Roberto Marrano	Pratt & Whitney Canada	Engine – P
Roxanne Bochar	Pratt & Whitney	Engine – P
Shengfang Liao	Pratt & Whitney East Hartford	Engine – P
Shoichi Yamasaki	JCAB	Non-voting role
Takuya Mikami	JCAB	Non-voting role
Terry Tritz	Boeing	Consultant
Tom Dwier	Textron Aviation	Airplane – P
Tom Ratvasky	NASA	Consultant
Walter Strapp	Met Analytics Inc.	Consultant

Tasking Summary

No Change

- The ICIWG will provide advice and recommendations to the ARAC through the TAE Subcommittee on Appendix D to Part 33, and harmonization of §33.68 *Induction System Icing* requirements as follows:
    1. Evaluate recent ICI environment data obtained from both government and industry to determine whether flight testing data supports the existing Appendix D envelope.
    2. Evaluate the results carried out in Task 1 and recommend changes to the existing Appendix D envelope, as required. Examine how compliance with §33.68(e) and §25.1093(b)(1) can be shown to demonstrate that at the airplane level, engine effects that could prevent the continued safe flight and landing of the airplane during encounters in ice crystal icing conditions would be extremely improbable (10^{-9}). If that cannot be shown, recommend changes to the text of §33.68 or §25.1093 (or a combination of both) that would provide the level of safety described by §25.1309(b)(1).
    3. Compare available service data on air data probes from both government and industry probes on Appendix D, including any changes proposed in Task 2. Determine whether engine or aircraft data probe responses warrant the use of a different environmental envelope from those proposed in Task 2, or to the existing Appendix D envelope.
    4. Evaluate the results from Task 3 and recommend ICI boundaries relevant to aircraft and engine air data probes. If the working group proposes a different envelope for aircraft and engine air data probes, recommend if these should be included in the existing Appendix D, or create a new appendix to Part 33.
    5. Identify non-harmonized FAA or EASA ICI regulations or guidance. If the working group finds significant differences that impact safety, propose changes to increase harmonization that may also include icing environments other than Appendix D as a secondary objective.
    6. Recommend changes to the Advisory Circular AC20-147a, *Turbojet, Turboprop, Turboshaft and Turbofan Engine Induction System Icing and Ice Ingestion*, based on Task 1 through 5 results.
    7. Assist the FAA in determining the initial qualitative and quantitative costs, and benefits that may result from the working group's recommendations.
    8. Develop a recommendations report containing the results of tasks 1 through 6. The report should document both majority and dissenting positions on the findings, the rationale for each position, and reasons for disagreement.

2023 Schedule

- Held F2F meeting 19-21 April @ Textron, Wichita, KS
- No meeting in June due to SAE icing conference (Vienna)
- 19-21 September 2023 F2F meeting @ Boeing, Washington D.C.
- 5-7 December 2023 F2F meeting EASA, Cologne, Germany

STATUS OF TASKING – 1 / 2

1. **COMPLETE -** Evaluate recent ICI environment data obtained from both government and industry to determine whether flight testing data supports the existing Appendix D envelope.

2. **IN-WORK -** Evaluate the results carried out in Task 1 and recommend changes to the existing Appendix D envelope, as required.
   a) **Joint Probability Study IN-WORK -** Examine how compliance with §33.68(e) and §25.1093(b)(1) can be shown to demonstrate that at the airplane level, engine effects that could prevent the continued safe flight and landing of the airplane during encounters in ice crystal icing conditions would be extremely improbable (10^{-9}). If that cannot be shown, recommend changes to the text of §33.68 or §25.1093 (or a combination of both) that would provide the level of safety described by §25.1309(b)(1).

3. **COMPLETE -** Compare available service data on air data probes from both government and industry probes on Appendix D, including any changes proposed in Task 2. Determine whether engine or aircraft data probe responses warrant the use of a different environmental envelope from those proposed in Task 2, or to the existing Appendix D envelope.

4. **IN-WORK -** Evaluate the results from Task 3 and recommend ICI boundaries relevant to aircraft and engine air data probes. If the working group proposes a different envelope for aircraft and engine air data probes, recommend if these should be included in the existing Appendix D, or create a new appendix to Part 33

WG UPDATES

- Decision in work on Median Mass Diameter (MMD): do we extrapolate to -90 C, or hold last data at -50 C level?
  - Lower confidence in MMD extrapolation than temperature or TWC data (better temperature, TWC model fidelity)
  - Probe focals need to make decision; engine OEMs are not affected by MMD
- Data Plots: Adding -20 C interpolation line (even though no data gathered at specific interval)
- **Joint Probability Study:**
  - FAA contract in work with NASA Langley - possibly complete later in 2023?
  - Current prediction is that joint probability study projected to complete in 2025
  - Boeing continuing with MCS bucket support, and Monte Carlo support when ready

STATUS OF TASKING – 2 / 2

5. **COMPLETE -** Identify non-harmonized FAA or EASA ICI regulations or guidance. If the working group finds significant differences that impact safety, propose changes to increase harmonization that may also include icing environments other than Appendix D as a secondary objective.
6. **COMPLETE -** Recommend changes to the Advisory Circular AC20-147a, Turbojet, Turboprop, Turboshaft and Turbofan Engine Induction System Icing and Ice Ingestion, based on Task 1 through 5 results.
7. **IN-WORK (Economic study complete, but need to provide separate deliverable to FAA) -** Assist the FAA in determining the initial qualitative and quantitative costs, and benefits that may result from the working group's recommendations.
8. **FINAL REPORT IN-WORK (FAA agreed that no interim report was necessary) -** Develop a recommendations report containing the results of tasks 1 through 6. The report should document both majority and dissenting positions on the findings, the rationale for each position, and reasons for disagreement.

AREAS of ARAC CONSIDERATION

- None

DRAFT – DRAFT – DRAFT – DRAFT – DRAFT – DRAFT – DRAFT

Aviation Rulemaking Advisory Committee Task Notice
(ADD ANNOUNCEMENT DATE)

ACTION: Notice of a new task assignment for the Aviation Rulemaking Advisory Committee (ARAC) and solicitation of members.

SUMMARY: The Federal Aviation Administration (FAA) assigned ARAC a new task to address a range of engine and powerplant interface regulatory and guidance issues. The task will address several gaps, conflicts, and discrepancies between 14 CFR part 33 and part 25 regulations and guidance that have accumulated over time. This notice informs the public of the new ARAC activity and solicits membership for the new Engine and Powerplant Interface Working Group (EPIWG).

BACKGROUND: ARAC is governed by the Federal Advisory Committee Act (5 U.S.C., Appendix 2). The FAA established the ARAC to provide information, advice, and recommendations on aviation related issues that could result in rulemaking to the FAA Administrator, through the Associate Administrator of Aviation Safety.

An ARAC working group is proposed to address a range of engine and powerplant interface regulatory and guidance issues. The initial working group tasks will come from the FAA and European Union Aviation Safety Agency (EASA) Engine Airplane Certification Working Group (EACWG) recommendation list. There is a backlog of technical, regulatory and guidance issues associated with the interface between part 33, Airworthiness Standards: Aircraft Engines, and part 25, Airworthiness Standards: Transport Category Airplanes, subpart E, Powerplant. The EPIWG will report to the ARAC Transport Aircraft and Engines (TAE) Subcommittee. The TAE Subcommittee has substantial experience working with engine regulations and guidance and overseeing working groups in this area. All initial tasks relate to engines to be installed in part 25 transport category airplanes. Once the ARAC accepts the task, the working group chairperson will propose priorities and a schedule for completion.

The EPIWG may also consider engine and powerplant interface tasks that affect parts 23, 27, and 29 aircraft.

On (DATE), the FAA assigned this task to ARAC, which ARAC designated to the TAE Subcommittee EPIWG. Participants of the newly established EPIWG will serve as members of the working group only, reporting to ARAC through the TAE Subcommittee. The working group will provide advice and recommendations on the assigned task. The TAE Subcommittee will review and approve submission of the recommendation report to ARAC for consideration. ARAC must deliberate and discuss the report prior to voting on whether to submit the recommendation report to the FAA.

THE TASK: The EPIWG will provide advice and recommendations to the ARAC on the most effective ways to resolve regulatory and guidance gaps and conflicts between part 33 and part 25.

EPIWG recommendations should maximize harmonization of airworthiness authority regulations and guidance to the extent practicable. The working group should review any relevant materials to assist in achieving their objective.

1. Background Information: The FAA and EASA EACWG report on improving engine/aircraft interface certification practices, issued in June 2017, provides background information on the planned Working Group tasks. See: (https://www.easa.europa.eu/en/document-library/general-publications/engine-and-aircraft-certification-working-group-eacwg-report).

2. Specific Tasks:
    a. Rotor Blade Fragments: Propose revisions and new data reporting requirements under a) §§ 33.19 and 33.94 and b) guidance for compliance with part 25 to ensure that engine containment test data can be properly evaluated at the aircraft level. This task would include both airplane and engine recommendations to completely address the current policy gaps regarding rotor burst.
    b. Function & Reliability Testing: Review 14 CFR part 33 to determine how it supports the engine function and reliability flight test requirements of 14 CFR § 21.35(b)(2) and (f). If needed, propose amendments to the relevant regulations or guidance.
    c. Engine Restart/Relight: Provide recommendations to resolve part 33 and part 25 regulatory or guidance gaps, or conflicts with respect to rapid restart/high power fuel cuts and quick windmill relight requirements.
    d. Inhibition of engine protection systems used to comply with part 33: Address if and when part 25 aircraft systems should be able to deliberately inhibit the operation of engine systems used to meet part 33 safety requirements (e.g., software used as a means of compliance to prevent hazardous engine conditions resulting from shaft failure under §33.27(a) and (c)). As a minimum, recommend whether additional allowance for aircraft inhibition of engine protection systems should go beyond the conditions described in FAA Policy Statement PS-AIR-33.27-02, "Turbine, Compressor, Fan, and Turbosupercharger Rotor Overspeed Engine Control Systems, 14 CFR § 33.27(c) & (e)," Dated February 2, 2023.
    e. Electrical Wiring Interconnection Systems (EWIS): Propose changes to part 33 to ensure the engine would meet the part 25 subpart H and Appendix H25.5 EWIS requirements at the time of engine certification, without additional FAA certification findings at the part 25 level.
    f. Thrust Reverser Aircraft Requirement Guidance: Recommend changes to AC 20-18B, "Qualification Testing of Turbojet and Turbofan Engine Thrust Reversers," dated July 7, 2015, to include additional part 25-specific thrust reverser requirements.

g. Where applicable, for any changes to FAA regulations proposed under each sub-task, provide quantitative and qualitative estimates of the resulting costs and benefits.

3. Develop a report containing recommendations on the findings and results of the tasks explained above.
    a. The recommendation report should document both majority and dissenting positions on the findings and the rationale for each position.
    b. Any disagreements should be documented, including the rationale for each position and the reasons for the disagreement.
    c. The working group may submit incremental reports covering individual sub-tasks to the TAE for consideration by the ARAC.

4. The FAA may assign additional tasks to this working group intended to resolve regulatory and guidance gaps and conflicts between part 33 and part 25 in the future, using the normal ARAC processes.

SCHEDULE: This tasking notice requires multiple recommendation reports:

1. The initial recommendation report for the first sub-task must be submitted to the TAE for review and presentation to the ARAC not later than 24 months after the first working group meeting.
2. After the initial recommendation report is submitted, recommendation reports must be submitted to the TAE for review and acceptance in accordance with a schedule to be proposed to the ARAC by the TAE, in coordination with the working group chairperson.

WORKING GROUP ACTIVITY: The working group must comply with the procedures adopted by the ARAC and as follows:

1. Conduct a review and analysis of the assigned tasks and any other related materials or documents.
2. Draft and submit a work plan for completion of the task, including the rationale supporting such a plan, for consideration by the TAE.
3. Provide a status report at each TAE Subcommittee meeting.
4. Draft and submit recommendation reports based on the review and analysis of the assigned tasks.
5. Present recommendation reports at the TAE Subcommittee meeting.
6. Present the findings from the additional tasks at the TAE Subcommittee meeting.

PARTICIPATION IN THE WORKING GROUP: The EPIWG will be comprised of technical experts having an interest in the assigned task. A working group member need not be a member representative of ARAC. The FAA would like a wide range of stakeholders to ensure all aspects of the tasks are considered in development of the recommendations.

The provisions of the Office of Management and Budget publication, “Revised Guidance on Appointment of Lobbyists to Federal Advisory Committees, Boards, and Commissions” (79 FR

47482, August 13, 2014), continues the ban on registered lobbyists participating on Agency Boards and Commissions if participating in their individual capacity. The guidance allows registered lobbyists to participate on agency boards and commissions in a "representative capacity," meaning that they are appointed for the "express purpose of providing a committee with the views of a nongovernmental entity, a recognizable group of persons or nongovernmental entities (an industry, sector, labor unions, or environmental groups, etc.) or state or local government." (For further information see Lobbying Disclosure Act of 1995 (LDA) as amended, 2 U.S.C 1603, 1604, and 1605.)

NOMINATION PROCESS: Candidates are required to submit, in full, the following materials to be considered for membership. Failure to submit the required information may disqualify a candidate from the review process.

1. A resume or curriculum vitae.
2. A statement describing the candidate's interest in the task and the expertise the candidate would bring to the working group.

Nominations must be submitted electronically (by E-mail) to Alan Strom, AIR-62A at alan.strom@faa.gov. The subject line should state "Engine & Powerplant Interface Working Group Nomination." The FAA must receive all requests by **[day], [date] at [time Eastern Standard Time]**. The ARAC, through the TAE Subcommittee, and the FAA will review the requests and advise you whether your request is approved.

Roles and Responsibilities

If you are chosen for membership on the working group, you must actively participate in the working group, attend all meetings, and provide written comments when requested. You must devote the resources necessary to support the working group in meeting any assigned deadlines. You must keep your management and those you may represent advised of working group activities and decisions to ensure the proposed technical solutions do not conflict with the position of those you represent. Once the working group has begun deliberations, members will not be added or substituted without the approval of the ARAC Chair and the Transport Airplane and Engine Subcommittee Chair, the FAA, including the Designated Federal Officer, and the Working Group Chair.

Confidential Information

All final work products submitted to the ARAC are public documents. Therefore, it should not contain any nonpublic proprietary, privileged, business, commercial, and other sensitive information (collectively, confidential information) that the working group members would not want to be publicly available. With respect to working groups, there may be instances where members will share commercial information within the working group for purposes of completing an assigned tasked.

Members must not disclose to any third party or use for any purposes other than the assigned task, all confidential information disclosed to one party by the other party, without the prior

written consent of the party whose confidential information is being disclosed. All parties must treat the confidential information of the disclosing party as it would treat its own confidential information, but in no event shall it use less than a reasonable degree of care. If any confidential information is shared with the FAA representative on a working or task group, it must be properly marked in accordance with the Office of Rulemaking Committee Manual, ARM-001-15 (https://www.faa.gov/regulations_policies/rulemaking/media/Committee_Manual.pdf).

The Secretary of Transportation determined the formation and use of the ARAC is necessary and in the public interest in connection with the performance of duties imposed on the FAA by law.

The ARAC meetings are open to the public. However, working group meetings are not open to the public, except to the extent individuals with an interest and expertise are selected to participate. The FAA will make no public announcement of working group meetings.

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