



AVIATION RULEMAKING ADVISORY COMMITTEE (ARAC)

FEDERAL AVIATION ADMINISTRATION

July 19, 2016

ARAC MEETING 1:00 p.m.

- Welcome and Introductions
- Ratification of Minutes
- Status Reports:
 - ARAC
 - Aircraft Systems Information Security/Protection (ASISP) Working Group - Mr. Jens Hennig and Mr. David Floyd (Tasked: 12/18/2014; Recommendations Due: 8/23/2016)
 - Air Traffic Controller Training Working Group (ATCWG) - Mr. Sid McGuirk (Tasked: 9/18/2015; Recommendations Due: 1/18/2017)
 - Rotorcraft Occupant Protection Working Group - Mr. Dennis Shanahan (Tasked: 11/5/2015; Recommendations Due: Task 2 - 2/5/2017, Task 5 - 2/5/2018, Task 6 - 8/5/2018)
 - Rotorcraft Bird Strike Working Group - Mr. Gary Roach (Tasked: 4/27/2016; Recommendations Due: 10/27/2017)
 - Load Master Certification Working Group - Mr. Steve Grota (Tasked: 5/12/2016; Recommendations Due: 5/12/2018)
 - Airman Certification Systems Working Group - Mr. David Oord (Tasked: 2/4/2016; Recommendations Due: 08/04/2018)
 - Transport Airplane and Engine (TAE) Subcommittee - Mr. Ali Bahrami
 - Transport Airplane Metallic and Composite Structures Working Group - Transport Airplane Damage-Tolerance and Fatigue Evaluation (Tasked: 1/26/2015; Recommendations Due: 1/26/2017)
 - Flight Test Harmonization Working Group- Phase 2 Tasking (Tasked: 4/11/2014; Recommendations Due: 4/11/2017)

- Transport Airplane Crashworthiness and Ditching Evaluation Working Group
(Tasked: 6/4/2015; Recommendations Due: 6/4/2017)
 - Engine Harmonization Working Group- Engine Endurance Testing
Requirements – Revision of Section 33.87 (Tasked:1/22/2014;
Recommendations Due: 6/30/2017)
 - Airworthiness Assurance Working Group (Tasked: 5/13/2004;
Recommendations Due: Ongoing)
- Status Report from the FAA

business on Wednesday July 13, 2016; written comments from members of the public for distribution at this meeting must reach Ms. Robinson by letter or email on this same date. A member of the public requesting reasonable accommodation should also make his/her request to Ms. Robinson by July 13. Requests received after that date will be considered but might not be able to be fulfilled.

The agenda of the meeting will include: Universal Postal Union Congress Preparations, Extraterritorial Offices of Exchange (ETOE), and Strengthening Global Capacity for Addressing.

FOR FURTHER INFORMATION CONTACT:

Please contact Ms. Sherece Robinson of the Office of Specialized and Technical Agencies (IO/STA), Bureau of International Organization Affairs, U.S. Department of State, at tel. (202) 663-2649, by email at RobinsonSA2@state.gov, or by mail at IO/STA, Suite L-409 SA-1; U.S. Department of State; Washington, DC 20522.

Dated: June 10, 2016.

Joseph P. Murphy,

Designated Federal Officer, Advisory Committee on International Postal and Delivery Services, Office of Specialized and Technical Agencies, Bureau of International Organization Affairs, Department of State.

[FR Doc. 2016-14641 Filed 6-20-16; 8:45 am]

BILLING CODE 4710-19-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Aviation Rulemaking Advisory Committee; Meeting

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of Aviation Rulemaking Advisory Committee (ARAC) meeting.

SUMMARY: The FAA is issuing this notice to advise the public of a meeting of the ARAC.

DATES: The meeting will be held on July 19, 2016, starting at 1:00 p.m. Eastern Daylight Savings Time. Arrange oral presentations by July 12, 2016.

ADDRESSES: The meeting will take place at the Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591, 10th Floor, MacCracken Conference Room.

FOR FURTHER INFORMATION CONTACT:

Katherine Haley, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591, telephone (202) 267- 3788; fax (202)

267-5075; email Katherine.L.Haley@faa.gov.

SUPPLEMENTARY INFORMATION: Pursuant to Section 10(a)(2) of the Federal Advisory Committee Act (5 U.S.C. App. 2), we are giving notice of a meeting of the ARAC taking place on July 19, 2016, at the Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591.

The Agenda includes:

1. Status Reports From Active Working Groups

- a. ARAC
 - i. Aircraft Systems Information Security/Protection Working Group
 - ii. Air Traffic Controller Training Working Group
 - iii. Rotorcraft Occupant Protection Working Group
 - iv. Rotorcraft Bird Strike Working Group
 - v. Load Master Certification Working Group
 - vi. Airman Certification Systems Working Group
- b. Transport Airplane and Engine (TAE) Subcommittee
 - i. Transport Airplane Metallic and Composite Structures Working Group—Transport Airplane Damage-Tolerance and Fatigue Evaluation
 - ii. Flight Test Harmonization Working Group—Phase 2 Tasking
 - iii. Transport Airplane Crashworthiness and Ditching Evaluation Working Group
 - iv. Engine Harmonization Working Group- Engine Endurance Testing Requirements—Revision of Section 33.87
 - v. Airworthiness Assurance Working Group

2. Status Report From the FAA

Attendance is open to the interested public but limited to the space available. Please confirm your attendance with the person listed in the **FOR FURTHER INFORMATION CONTACT** section no later than July 12, 2016. Please provide the following information: Full legal name, country of citizenship, and name of your industry association, or applicable affiliation. If you are attending as a public citizen, please indicate so.

For persons participating by telephone, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section by email or phone for the teleconference call-in number and passcode. Callers are responsible for paying long-distance charges.

The public must arrange by July 12, 2016 to present oral statements at the meeting. The public may present

written statements to the Aviation Rulemaking Advisory Committee by providing 25 copies to the Designated Federal Officer, or by bringing the copies to the meeting.

If you are in need of assistance or require a reasonable accommodation for this meeting, please contact the person listed under the heading **FOR FURTHER INFORMATION CONTACT**. Sign and oral interpretation, as well as a listening device, can be made available if requested 10 calendar days before the meeting.

Issued in Washington, DC, on June 15, 2016.

Dale Bouffiou,

Acting Designated Federal Officer, Aviation Rulemaking Advisory Committee.

[FR Doc. 2016-14589 Filed 6-20-16; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Environmental Impact Statement: Lafayette Parish, Louisiana

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of intent.

SUMMARY: The FHWA is issuing this notice to advise the public that a supplement to a final environmental impact statement will be prepared for a proposed highway project in Lafayette Parish, Louisiana.

FOR FURTHER INFORMATION CONTACT:

Joshua Cunningham, Project Delivery Team Leader, Federal Highway Administration, 5304 Flanders Drive, Suite A, Baton Rouge, Louisiana 70808, Telephone: (225) 757-7600.

SUPPLEMENTARY INFORMATION: The FHWA, in cooperation with the Louisiana Department of Transportation and Development, and the Lafayette Consolidated Government, will prepare a supplement to the final environmental impact statement (EIS) on a proposal to upgrade route U.S. 90/U.S. 167 in Lafayette Parish, Louisiana. The original EIS for the improvements (FHWA-LA-EIS-00-01-F) was approved on January 8, 2003. The proposed improvements to U.S. 90/U.S. 167 provide a six-lane fully controlled access freeway from just south of the Lafayette Regional Airport north to the southern terminus of Interstate 49 at the Interstate 10/ Interstate 49 Interchange, generally along the existing U.S. 90/U.S. 167 corridor (Evangeline Thruway) with a portion on new alignment, in urban Lafayette, for a distance of approximately 5.5 miles. Improvements

AVIATION RULEMAKING ADVISORY COMMITTEE

RECORD OF MEETING

MEETING DATE: March 23, 2016

MEETING TIME: 1 p.m.

LOCATION: Federal Aviation Administration
800 Independence Avenue SW.
10th Floor
MacCracken Conference Room
Washington, DC 20591

PUBLIC ANNOUNCEMENT: The Federal Aviation Administration (FAA) told the public of this Aviation Rulemaking Advisory Committee (ARAC) meeting in a Federal Register notice published March 8, 2016 (81 FR 12191).

ATTENDEES: **Committee Members**

Todd Sigler	The Boeing Company (Boeing), <i>ARAC Chair</i>
Dr. Tim Brady	Embry-Riddle Aeronautical University (ERAU), <i>ARAC Vice Chair</i>
Ali Bahrami	Aerospace Industries Association (AIA) <i>Transport Airplane and Engine (TAE) Subcommittee, Chair</i>
Ambrose Clay	National Organization to Insure a Sound Controlled Environment (NOISE)
Damon Cox	Airline Dispatchers Federation (ADF)
Mack Dickson*	Experimental Aircraft Association (EAA)
Gail Dunham*	National Air Disaster Foundation (NADF)
Stéphane Flori*	AeroSpace and Defence Industries Association of Europe (ASD)
Robert Frenzel	Federal Aviation Administration (FAA) <i>Office of the Chief Counsel, AGC-200</i>

Jens Hennig*	General Aviation Manufacturers Association (GAMA)
Paul Hudson	FlyersRights.org
Robert Ireland	Airlines for America (A4A)
Lirio Liu	Federal Aviation Administration (FAA) <i>Office of Rulemaking, ARM-1 Designated Federal Officer (DFO)</i>
Sarah MacLeod	Aeronautical Repair Station Association (ARSA)
David Oord	Aircraft Owners and Pilots Association (AOPA)
George Paul	National Air Carrier Association (NACA)
Ric Peri	Aircraft Electronics Association (AEA)
Lorelei Peter	Federal Aviation Administration (FAA) <i>Office of the Chief Counsel, AGC-200</i>
Phil Poynor	National Association of Flight Instructors (NAFI)
Bob Robeson	Federal Aviation Administration (FAA) <i>Office of Aviation Policy and Plans, Economic Analysis Division, APO-300</i>
Yvette Rose	Cargo Airline Association (CAA)
Jennifer Sunderman	Regional Airline Association (RAA)

Attendees

Douglas Anderson*	Federal Aviation Administration (FAA) <i>Northwest Mountain Region, Regional Counsel, AGC-210</i>
Mike Begier	United States Department of Agriculture (USDA) Wildlife Services, Airport Wildlife Hazards Program
Jorge Castillo	Federal Aviation Administration (FAA) <i>Southwest Region—Rotorcraft Directorate, ASW</i>

Anthony Chu	Federal Aviation Administration (FAA) <i>Air Traffic Organization, AJI-231</i>
Martin Crane*	Federal Aviation Administration (FAA) <i>Southwest Region—Rotorcraft Directorate, ASW</i>
Maryanne DeMarco	Coalition of Airline Pilots Associations (CAPA)
John Donnell	Federal Aviation Administration (FAA) <i>Northwest Mountain Region—Transport Airplane Directorate, ANM-111</i>
David Floyd*	The Boeing Company (Boeing)
Ralen Gao	Federal Aviation Administration (FAA) <i>Office of Rulemaking, ARM</i>
Paul Greer	Federal Aviation Administration (FAA) <i>Office of the Chief Counsel, AGC-210</i>
Stephen Grotz	Federal Aviation Administration (FAA) <i>Aircraft Maintenance Division, AFS-330</i>
Keira Jones	Federal Aviation Administration (FAA) <i>Office of Rulemaking, ARM-100</i>
Sandra Lamparello	PAI Consulting
Rolandos Lazaris	Federal Aviation Administration (FAA) <i>Flight Standards Service, AFS-300</i>
Sandra Long	Federal Aviation Administration (FAA) <i>Office of Rulemaking</i>
Joan Lowy	Associated Press (AP)
Sol Maroof	Federal Aviation Administration (FAA) <i>Aircraft Certification Service, AIR-110</i>
Suzanne Masterson	Federal Aviation Administration (FAA) <i>Northwest Mountain Region—Transport Airplane Directorate, ANM-111</i>
Sid McGuirk	Embry-Riddle Aeronautical University (ERAU)

George Padalec	Federal Aviation Administration (FAA) <i>Flight Standards Service, AFS-300</i>
Susan Parson	Federal Aviation Administration (FAA) <i>Flight Standards Service, AFS-3A</i>
Kenneth Ready	Federal Aviation Administration (FAA) <i>Mission Support Services, AJV-113</i>
Gary Roach	Federal Aviation Administration (FAA) <i>Southwest Region—Rotorcraft Directorate, ASW</i>
Lee Roskop	Federal Aviation Administration (FAA) <i>Southwest Region—Rotorcraft Directorate, ASW</i>
Kristen Sanders	Aurora Sciences, LLC
Mary Schooley*	Federal Aviation Administration (FAA) <i>Northwest Mountain Region—Transport Airplane Directorate, ANM-111</i>
Dennis Shanahan*	Injury Analysis, LLC
Sandra Shelley*	Federal Aviation Administration (FAA) <i>Southwest Region—Rotorcraft Directorate, ASW</i>
Walter Sippel*	Federal Aviation Administration (FAA) <i>Northwest Mountain Region—Transport Airplane Directorate, ANM-111</i>
Charles Smith	Federal Aviation Administration (FAA)
Randy Smith	Federal Aviation Administration (FAA) <i>Air Traffic Organization, AJI-2</i>
Priscilla Steward	Federal Aviation Administration (FAA) <i>Aircraft Certification Service, AIR-112</i>
Paul Takemoto	Federal Aviation Administration (FAA) <i>Office of Communications, AOC-100</i>

*Attended via teleconference.

WELCOME AND INTRODUCTION

Mr. Todd Sigler, ARAC Chair, called the meeting to order at 1:03 p.m. and thanked the ARAC members and the public for attending. He invited the attendees to introduce themselves. Mr. Sigler stated although it did not appear on the agenda, the ARAC would discuss the material submitted by Mr. Paul Hudson, FlyersRights.org, at the end of the meeting. Ms. Lirio Liu, DFO, read the required Federal Advisory Committee Act, Title 5, United States Code (5 U.S.C.) Appendix 2 (2007) statement.

Ratification of Minutes

Mr. Sigler stated the first item on the agenda is ratification of the minutes from the December 17, 2015, meeting. He asked for any revisions or amendments to the draft minutes circulated before the meeting. Without any revisions or questions, the ARAC ratified the minutes.

RECOMMENDATION REPORT

Rotorcraft Occupant Protection Working Group (ROPWG) Interim Report

Mr. Dennis Shanahan, Injury Analysis, LLC, presented the ROPWG interim report. He stated this interim report includes the working group's cost/benefit analysis for crashworthiness. Mr. Shanahan noted the ROPWG analyzed costs and benefits separately. He added it divided its cost analysis according to compliance with crash resistant fuel system requirements and crash resistant seats and structure (CRSS) requirements.

Mr. Shanahan explained the ROPWG only studied aircraft currently in production and expected to remain in production after implementation of the rules. He reviewed the performance data and cost estimates provided by the rotorcraft manufacturers and noted the recurrent costs vary widely by manufacturer. Mr. Shanahan stated the recurrent costs were per aircraft, while the one-time and labor costs were for all aircraft produced by the manufacturer. He stated some costs may be inflated, but the ROPWG worked with the data provided by the manufacturers.

Mr. Shanahan noted the National Transportation Safety Board (NTSB) data on fatal rotorcraft crashes lacks detail on crash kinematics and specific injury data, so it was not helpful to the benefit analysis.

Mr. Shanahan reviewed the ROPWG's cost/benefit summary. He noted the NTSB dataset showed 763 accidents from 2006 to 2015 involved helicopter models still in production and not fully compliant with the new requirements. Mr. Shanahan stated these crashes resulted in 226 fatalities and 146 serious injuries. He added 21 crashes involved fully compliant rotorcraft, resulting in 19 fatalities and 1 serious injury.

Mr. Shanahan explained the ROPWG was unable to locate benefit information for CRSS requirements, so it used data from the Notice of Proposed Rulemaking (NPRM), issued in 1985. He stated the ROPWG was unable to obtain the docket for the NPRM, which may provide more valuable information.

Mr. Shanahan stated full compliance with current regulations is not economical for some platforms. He explained if full compliance is required, those platforms will go out of production. Mr. Shanahan noted the ROPWG found there is a considerable benefit to full compliance, but partial compliance is acceptable.

Mr. Shanahan noted 10 ROPWG members concurred with the cost/benefit analysis and 1 member did not. He stated 10 weeks was inadequate time for a comprehensive cost/benefit analysis, and the ROPWG needs more data from manufacturers to reach a more accurate estimate. Mr. Shanahan added there are non-economic, unquantifiable costs associated with loss of human life, which analysts must consider in any cost/benefit analysis.

Ms. Gail Dunham, NADF, asked if the ROPWG used FAA guidance on the statistical value of a human life in its analysis. Mr. Shanahan replied the ROPWG used an FAA guide dated September 2015.

The ARAC discussed the high value of recurrent costs reflected in the ROPWG report. Mr. Bob Robeson, FAA, stated increased maintenance costs are included in the recurrent costs. The ARAC discussed items included in recurrent costs as reflected in the ROPWG report, including payload reduction leading to loss of revenue, the amount of time required to bring rotorcraft into compliance.

Mr. Ambrose Clay, NOISE, asked if crash prevention would be a better investment than survivability. Mr. Shanahan stated prevention is important, but it is not possible to prevent all crashes.

Mr. Sigler expressed concern with the aggressive timeframe for the ROPWG to complete its work and asked how long the working group would need to produce a report based on fully vetted data. Mr. Shanahan replied it would take 6–12 months. Mr. Ric Peri, AEA, asked Mr. Jorge Castillo, FAA, for his opinion on ROPWG progress. Mr. Castillo suggested that manufacturers either do not have more data, or have limitations that prevent further sharing, so giving the ROPWG more time does not mean the report will be any more helpful.

The ARAC accepted the ROPWG's interim report and extended its timeline by 9 months.

Airman Certification Systems Working Group (ACSWG) Interim Report

Mr. David Oord, AOPA, presented the ACSWG interim report to the ARAC. He stated work is complete on recommendations for the private pilot airplane and instrument rating airplane airman certification standards (ACS), including the handbooks, guidance documents, and testing supplements. Mr. Oord noted the standards are set for implementation in June 2016 and the ACSWG tasking remains in place until December 2016.

Mr. Sigler expressed his appreciation for the work done and progress made by the ACSWG. The ARAC accepted the ACSWG interim report.

STATUS REPORTS FROM ACTIVE WORKING GROUPS

Aircraft Systems Information Security/Protection (ASISP) Working Group (ASISPWG)

NOTE: This update occurred at the end of the ARAC meeting, but is covered here according to its place in the meeting agenda.

Mr. Jens Hennig, GAMA, and Mr. David Floyd, Boeing, provided the update for the ASISPWG. Mr. Floyd reviewed the ASISPWG's scope, tasking, schedule, membership, technical areas under review, and next steps. He added the ASISPWG is on schedule to meet its August 2016 report due date. Mr. Hennig and Mr. Floyd noted the ASISPWG was meeting concurrently with the ARAC.

Air Traffic Controller Basic Qualification Training Working Group (ATCWG)

Mr. Sid McGuirk, ERAU, provided the update for the ATCWG. He stated the Administrator approved him as ATCWG Chair on January 12, 2016. Mr. McGuirk noted he is establishing working group membership. He emailed potential members and is awaiting their responses.

Mr. McGuirk reviewed the ATCWG tasking and noted the working group will make recommendations on ATC training and hiring. He asked for an extension because the working group will not hold its first meeting until May 2016, and its first report is due in June 2016. Mr. McGuirk noted the working group is currently reviewing the training portion of its tasking. Mr. George Paul, NACA, asked if the ATCWG is working on the hiring portion of its tasking, and Mr. McGuirk replied it has not yet started work on hiring.

Mr. Sigler asked if Mr. McGuirk would like a 6-month extension. Mr. McGuirk replied he would, because the working group has just started working. Ms. Sarah MacLeod, ARSA, asked if the ARAC can extend the tasking by motion. Mr. Sigler responded it could. Ms. MacLeod noted the start date of the tasking should be the date the FAA approves the chair.

Mr. Clay asked if the ATCWG could work on both training and hiring at the same time. Mr. McGuirk replied there is a dependency issue, and both issues are controversial, so the working group would like to review each individually.

Mr. Peri stated the working group is 6 months off schedule, so the ARAC should extend the tasking by 6 months. The ARAC approved the extension and requested Mr. McGuirk present an interim report at the December 2016 ARAC meeting. Ms. Dunham asked for an update on membership once it is established. Mr. Sigler stated Mr. McGuirk may send that to the ARAC electronically.

TAE Subcommittee

Mr. Ali Bahrami provided the TAE update. He noted the Engine Harmonization, Metallic and Composite, Material Flammability, and Crashworthiness and Ditching Working Groups are proceeding on schedule. Mr. Bahrami stated the Airworthiness Assurance and Flight Test Harmonization Working Groups are experiencing some scheduling issues but are still working to complete all tasks. He then reviewed the status of the various TAE working groups.

Engine Harmonization Working Group (EHWG) (TAE)—Engine Endurance Testing Requirements—Revision of Section 33.87

Mr. Bahrami stated the EHWG is on schedule but the schedule is tight. He told the ARAC the proposed engine endurance test is being finalized.

Airworthiness Assurance Working Group (AAWG) (TAE)

Mr. Bahrami stated the AAWG is currently considering options related to its tasking while supporting the Metallic and Composite Working Group. He noted Mr. Mark Yerger, FedEx Corporation, has moved on to a new position and is no longer the working group chair. He stated the working group will discuss a new chair at its next meeting.

Flight Test Harmonization Working Group (FTHWG) (TAE)—Phase 2 Tasking

Mr. Bahrami stated the FTHWG has reprioritized the scope of its remaining work pursuant to a TAE request. He noted the first 10 working group taskings will be complete by the due date, but the last 2 will not be completed in time and need additional time to complete. Mr. Bahrami stated the FTHWG will present new proposals to the TAE at its June 22, 2016, meeting. He asked for ARAC input on extending the schedule so the FTHWG has enough time to address the Handling Qualities Compliance Finding and the Pilot Induced Oscillation/Airplane Pilot Coupling tasks.

Transport Airplane Metallic and Composite Structures Working Group (TAMCSWG)

Mr. Bahrami stated work continues on schedule for the TAMCSWG. He noted the working group has defined subteams to address specific items in the tasking and will assess their progress at its next meeting.

Transport Airplane Crashworthiness and Ditching Evaluation Working Group (TACDEWG) (TAE)

Mr. Bahrami stated the TACDEWG held a productive meeting in December 2015, during which there were detailed discussions about the tasking. He noted the working group established subteams to develop a schedule in support of the work plan, and the next meeting will be held April 5–7, 2016.

Mr. Sigler asked if Mr. Bahrami could reschedule the next TAE meeting to align with the next ARAC meeting, currently scheduled for June 16, 2016. Mr. Bahrami replied some TAE members are not available before the ARAC meeting. Ms. Liu stated the ARAC could revise its meeting schedule to every 4 months rather than every 3 months, to give working groups more time to hold their meetings and report to the ARAC.

NEW TASKS

Rotorcraft Bird Strike Working Group (RBSWG)

Mr. Gary Roach, FAA, briefed the ARAC on a proposed tasking to form the RBSWG. He noted the discussion at the December 17, 2015, ARAC meeting led to changes in the original proposed tasking, including reference to academic studies, information on the increase in rotorcraft bird strikes from 2010 through 2014, and updates on other bird strike research within the FAA. Mr. Roach stated the revised tasking covers the same scope with increased clarity.

Mr. Roach stated rotorcraft certificated under Title 14, Code of Federal Regulations (14 CFR) part 27, which comprise 9 percent of the existing fleet but which experience 75 percent of bird strikes, currently have no bird strike requirements. He added the RBSWG would review bird size requirements for 14 CFR part 29 rotorcraft. He noted these two tasks were separated after the discussion at the December 17, 2015, ARAC meeting.

Mr. Roach explained the tasking now specifies which tasks apply to three types of aircraft: newly designed/newly type-certificated aircraft, newly manufactured aircraft, and the aircraft in the existing fleet. He added the RBSWG will consider existing technology only, and it will review flight manual limitations.

ARAC members discussed including small unmanned aircraft systems (sUAS) in the RBSWG tasking. Mr. Roach stated the FAA had considered including sUAS, but decided against this because the structure of an sUAS is different from the structure of a bird. The ARAC members suggested the RBSWG could briefly review the inclusion of sUAS and include a footnote in the report explaining why it was rejected.

Mr. Hudson asked if bird strikes involving birds weighing less than 4 pounds are currently reported. Mr. Roach replied there is currently no bird strike reporting requirement, and all reports are voluntary. Mr. Lee Roskop, FAA, noted there are very few bird strike accidents in comparison to the number of close calls. He added in some instances of near or total pilot incapacitation, another pilot was on board and able to take over the controls to prevent an accident from occurring. Mr. Roskop stated the number of close calls is high. Mr. Roach added helmets and visors have saved some pilots from an injury that would have resulted in an accident after a bird strike.

Mr. Mike Begier, USDA, stated his office manages the FAA bird strike database and although reporting is voluntary, if a pilot reports a bird strike on approach, a 14 CFR part 139 airport is required to report that to the FAA.

The ARAC accepted the RBSWG tasking.

Special Cargo Working Group (SCWG) Loadmaster Certification Briefing and Loadmaster Certification Working Group (LMCWG) Tasking

Mr. Paul briefed the ARAC on work completed by the SCWG. Mr. Steve Grota, FAA, briefed the ARAC on the proposed LMCWG tasking. Mr. Paul stated he met with the FAA and provided copies of all SCWG notes, and the FAA agreed to allow the LMCWG to review these notes as part of its tasking. He added the SCWG members will be available to the LMCWG as subject matter experts as needed. The ARAC agreed to provide the SCWG recommendations and meeting materials to the LMCWG for review and to accept, reject or modify them.

Mr. Paul noted the LMCWG tasking applies only to special cargo loads, not to all loadmasters, and stated if the certification is specific to each cargo carrier, the SCWG will not object. Ms. Yvette Rose, CAA, asked whether the LMCWG's intent is to initiate rulemaking. Mr. Grota stated he believes that will be the outcome. He noted the SCWG has completed much of the work of its tasking, and the LMCWG will document that work.

Mr. Paul stated the FAA has agreed to use the existing framework in 14 CFR § 61.103 as a model for special cargo loadmaster certification. Mr. Grota stated the FAA could create a new subpart G to cover special cargo loadmasters. Ms. Rose asked why this topic was before the ARAC. Mr. Grota replied the major concerned parties are already on the SCWG, and its work has indicated rulemaking may enhance safety.

ARAC members discussed the transferability of loadmaster certification and its effect on recruiting. Mr. Paul stated keeping the certification specific to each cargo carrier provides continual review of the cargo carrier's training program. Mr. Sigler stated the LMCWG could review the transferability of the certification as part of its work.

Ms. Rose expressed concern with the scope of the LMCWG tasking, specifically the review of sections 2.7, 2.8, 2.12.3, and 2.13.4.6 of Advisory Circular (AC) 120-85A, Air Cargo Operations. She asked if this review is within the scope of special cargo loadmaster certification. Mr. Grota replied the LMCWG would review only the special cargo portions of the AC, and consider them when making its recommendation. Mr. Paul noted the SCWG would review the AC separately and report its findings to the LMCWG if necessary.

Ms. Dunham asked if the ARAC was being asked to approve two working groups. Mr. Paul explained the ARAC was being asked only to approve the LMCWG. He explained the SCWG is a group of associations that has existed for 3 years and will provide notes and subject matter expertise to the LMCWG.

The ARAC agreed the LMCWG will deal with special cargo only, and if the definition of special cargo changes, the working group must follow the new definition. Mr. Grota and Mr. Paul agreed the current definition is acceptable to all parties and is not likely to change.

The ARAC accepted the LMCWG tasking.

FlyersRights.org Petition for Rulemaking: Limitation of Seat Size Reductions

Mr. Hudson briefed the ARAC on a petition by FlyersRights.org to initiate rulemaking to limit reductions in airplane seat size. Mr. Sigler stated the issue currently before the ARAC is whether to discuss this petition at the next ARAC meeting. Mr. Paul stated the discussion may be premature because of language currently under consideration in a Senate bill. Ms. MacLeod asked about the agenda of the discussion.

Mr. Hudson stated he would like the FAA to establish an advisory working group on minimum standards for airplane seat sizes. He noted the FAA left the door open to further consideration in its denial of the petition and added there is a great deal of public support for such a rulemaking. Mr. Hudson stated he would like the ARAC to form an advisory working group to consider minimum standards for airplane seat size and impose a moratorium on further reduction in seat size while its work is pending.

Mr. Peri expressed discomfort with the ARAC reviewing FAA rulemaking petition rejections. Ms. Dunham stated the FAA did not address child safety, which is an important issue. Mr. Paul stated requirements exist and this is not a safety issue.

Mr. Sigler stated the ARAC always has the opportunity to offer suggestions to the FAA. He asked the ARAC members if they were interested in engaging in further discussion at the next ARAC meeting. ARAC noted they were not opposed to the petition, but were opposed to discussing it during an ARAC meeting.

FAA STATUS REPORT

Ms. Liu stated the FAA has used the rulemaking priority tool, which the ARAC helped develop, to identify the number of new rulemaking projects to initiate. Ms. Liu told the ARAC that in addition to rules requested by the lines of business for prioritization, the FAA gives special consideration to projects included in the FAA reauthorization and to the FAA's strategic initiatives. She stated ARM expects UAS rulemaking to be a large amount of work for the near future.

Ms. Liu noted the FAA follows 14 CFR § 11.73 when determining whether to grant a petition for rulemaking. She stated the FAA weighs safety, security, urgency, and priority against its available resources when deciding whether to grant a rulemaking petition.

Ms. Liu stated Ms. Renee Pocius has transferred from ARM to the FAA Office of International Affairs, and thanked Ms. Ralen Gao for covering this meeting. She noted ARM hopes to have a new focal point in place for the next ARAC meeting.

Ms. Liu stated, as discussed earlier in the meeting, the ARAC will review whether to change its meeting schedule from quarterly to every 4 months. She reminded the ARAC members the next meeting is currently scheduled for June 16, 2016, but with the conflict of the TAE meeting, they may look at dates in July 2016.

Mr. Sigler asked if the FAA could provide the ARAC with a list of rulemaking recommendations that have not yet entered the rulemaking stage, and the date the ARAC submitted their recommendation reports. Ms. Liu stated ARM will prepare this list for the next ARAC meeting.

ADJOURNMENT

Mr. Sigler adjourned the meeting at 3:16 p.m.

Approved by: /s/
Todd Sigler, Chair

Dated: _6/20/2016_____

Ratified on: _7/19/2016_____

Air Traffic Controller Basic Qualification Training Working Group

Work Plan



Presented to: Aviation Rulemaking Advisory
Committee

Date: July 19, 2016

The ARAC Tasking

Scope

The Air Traffic Controller Basic Qualification Training Working Group (ATCWG) will provide to the Aviation Rulemaking Advisory Committee (ARAC) an analysis and recommendations on options for external training provider (ETP) solutions that restructure the FAA air traffic controller candidate pipeline.

Operating Boundaries

- Function within the ARAC processes and procedures, including following Federal Advisory Committee Act (FACA) requirements.
- Remain within the scope of the tasking.
- Conduct a review and analysis of the assigned task and any other related information.

Stakeholders

- The FAA Academy
- State of Oklahoma (Oklahoma City Metropolitan Area)
- Contractors who provide training (e.g., Science Applications International Corporation (SAIC), Raytheon, etc.)
- Industry
- Associations (e.g., National Air Traffic Controllers Association (NATCA), Air Traffic Control Association (ATCA), Association of Collegiate Training Institutions (ACTI), etc.)
- FAA staff offices and ATO
- Congress

Formation of the ATCWG

Authorized by: The FAA authorized and the ARAC accepted this tasking, as published in the *Federal Register* on Friday, September 18, 2015. (See 80 FR 56532.)

MEMBERS

- **Sid McGuirk (Chair)**, *Embry-Riddle Aeronautical University*
- **Scott Nutter (Vice Chair)**, *Delta Air Lines*
- **Tony Price**, *FAA Representative*
- **Margaret Browning**, *Hampton University*
- **Dan Cunningham**, *Advanced ATC, Inc.*
- **Brian Dempsey**, *FlightSafety International, Inc.*
- **Paul Drechsel**, *University of North Dakota*
- **Pete Dumont**, *Air Traffic Control Association*
- **Sam Fischer**, *Association of Collegiate Training Institutions*
- **George Tracy**, *Vaughn College*
- **Nicole Vitale**, *National Air Traffic Controllers Association*
- **Stephen West**, *University of Oklahoma*

OBSERVERS

- **Anthony Chu**, *Safety and Technical Training*
- **Bonnie Dragotto**, *Office of the Chief Counsel*
- **Katrina Holiday**, *Office of Rulemaking*
- **Kristen Sanders**, *Aurora Sciences (contract support)*

Additional Sources

SUBJECT-MATTER EXPERTS

- **Peter Abbey**, *Air Traffic Services*
- **Tom Adcock**, *NATCA*
- **Greta Ballentine**, *Technical Training, Curriculum*
- **Dana Broach**, *Civil Aerospace Medical Institute*
- **Terry Craft**, *Management Services*
- **Jim Doskow**, *FAA Academy- Air Traffic Division Manager*
- **John Farmer**, *Air Carrier Training Systems- Safety Inspector*
- **Joe Florio**, *Air Traffic Oversight Service*
- **Dan Herschler**, *NextGen/Human Factors*
- **Peter Ivory**, *Office of Policy and Planning*
- **Mamie Mallory**, *Office of Civil Rights*
- **Patrick Moorman**, *Mission Support Services*
- **Neil Rose**, *Airmen Training/Certification*
- **Humberto Ruiz**, *Office of the Chief Counsel*
- **Jeff Schroeder**, *FAA Chief Scientific and Technical Advisor for Flight Simulation Systems*
- **Joel Seidband**, *National Simulator Program*
- **Lamont Virgil**, *Office of Human Resource Management*
- **TBD**, *Grants*

Task Groups

- **Money** – Sid McGuirk (Lead), Margaret Browning, Sam Fischer
- **Learning Outcomes and Curriculum Standards** – Margaret Browning (Lead), Pete Dumont, Sam Fischer, Scott Nutter, George Tracy
- **Culture** – Brian Dempsey, Scott Nutter, George Tracy, Nicole Vitale
- **Oversight** – Brian Dempsey (Lead), Paul Drechsel, Scott Nutter
- **Providers** – Paul Drechsel (Lead), Dan Cunningham, Brian Dempsey, Sam Fischer, George Tracy
- **Pipeline** – Nicole Vitale (Lead), Dan Cunningham, Pete Dumont
- **Training Models** – Dan Cunningham (Lead), Sid McGuirk, Stephen West
- **Risks** – Stephen West (Lead), Pete Dumont, Nicole Vitale

Ground Rules

- Communicate with transparency
- Accountability to the group with personal commitment
- Respectful behavior—
 - Attack the problem, not the person
 - Start/end meetings on time
 - One person talks at a time
- Actively participate in plenary work-group meetings and task-group meetings
- Advocate for tasking; ensure safety and the best ATC training possible overall
- Represent organization without a personal agenda
- Work together to achieve the common goal of the tasking (guiding objective)
- Be a student of the task; show up as learners
- Rely on each others' strengths and expertise; support each other
- Ask the tough questions



Accomplishing the Tasking

Goals/Objectives/Expectations

Phase 1: Interim Report - Training

- Conduct a review and analysis of the assigned task and any other related materials or documents.
- Draft and submit a work plan for completion of the task, including the rationale supporting such a plan, for consideration by the ARAC.
- Provide a status report at each ARAC meeting.
- Draft and submit the Interim Report based on the review and analysis of the assigned tasks related to training.
- Present the Interim Report at the December 15, 2016 ARAC meeting.

Phase 2: Final Recommendation Report - Training and Hiring

- Identify additional changes that may be needed to enable Stage 1 training to be taught by an ETP.
- Once the ATCWG finalizes the recommendations from Phase 1 (Training), evaluate the impact to the hiring process and complete the Final Recommendation Report (Training and Hiring). (See p. 56533 of FR notice, 1(e).)
- ATCWG will work in consultation with the Office of Human Resource Management and the Office of Civil Rights to ensure the final recommendations are in compliance with Federal Sector Guidelines.
- If the Working Group is reinstated to answer FAA questions related to the Final Recommendation Report, the ATCWG will present their findings to the ARAC during a scheduled quarterly meeting.

Note: Substantive work also will be done between plenary ATCWG meetings.

The ATCWG may provide historical information, including secondary research on data yielded from previous qualitative and quantitative studies.

The ATCWG is utilizing a KSN for information-sharing purposes.

Schedule for 2016

Date	Meeting/Deliverables Due
May 24 – 26	Kickoff ATCWG Mtg. – FAA HQ
June 14 – 16	ATCWG Mtg. – MITRE
July 19	Status Update to ARAC
August 2 – 4	OKC – FAA Academy
September 15	Status Update to ARAC
September 20 – 22	ATCWG Mtg. – DCA Tower
October 25 – 27	ATCWG Mtg. – DC Metro Area
December 6 – 8	ATCWG Mtg. – DC Metro Area
December 15	Interim Report to ARAC
FY17/18	Final Recommendation Report to ARAC

Note: Again, substantive work also will be done between plenary ATCWG meetings by task groups.

Background Information

- The FAA assigned the ARAC a new task to provide recommendations on how the agency can utilize ETPs for its new-hire air traffic controller training program. The ongoing modernization of the air traffic control system, NextGen, will continually introduce advanced tools and procedures to enhance the safety and efficiency of the National Airspace System.
- Controllers will continue to need to know basic air traffic control skills but will also need to understand how to operate in the future operational environment. The FAA seeks to transform the air traffic controller training structure by shifting the Agency's focus from basic air traffic control qualification training to training the certified controller work force on advanced NextGen tools and procedures.
- The FAA is exploring alternative options to utilize ETP capabilities that would expose prospective air traffic controllers to the profession. It would also provide a level of training commensurate to the current Air Traffic Basic Qualification Training, before or during the FAA controller hiring process.

Lessons Learned

AT-CTI Schools

- The number of approved programs exceeded the FAA's level of control. While the FAA placed a moratorium on approving new programs, it did not address the FAA's lack of control over existing programs.
- The FAA Program Office was not funded or staffed to provide the level of oversight and management intended for the program; the program changed from a thorough site-visit based evaluation program to a self-reporting program, and the program office staff was reduced to 1-2 employees with varying levels of contract support.
- There were deep-rooted misunderstandings about the program that led to an unrealistic expectation for/from participants. For example, the level of training expected for the program was to teach AT Basics objectives (first five weeks of FAA Academy training); some schools went way above and beyond that minimum level of training with their programs and wanted to be distinguished as an advanced program (which the FAA did not require or endorse). Additionally, some stakeholders were disappointed with the knowledge/skill level of CTI graduates, expecting more advanced "certification-ready" knowledge.
- The training experience and the curriculum varied school by school and there was no centrally directed curriculum or laboratory requirements. The lack of standardization made it difficult to describe a common level of understanding for a CTI graduate, making it difficult for FAA instructors to develop follow-on training for graduates who were hired.
- The FAA worked with many schools to improve communications between the different institutions and hosted productive information exchanges (such as the Best Practices conference or monthly telcons) that were well received by program officials.

Lessons Learned (cont.)

Independent Review Panel (IRP)

- Although the panelists attempted to visit, interview, and analyze data and records from different FAA facilities, considering size, geographic location, type of air traffic operations, domain, level of complexity, etc., the report made generalizations about the operation that did not “fit” many of the facilities. Consequently, some of the recommendations were difficult to implement.
- The IRP weighed in on human resources/industrial organizational psychology specific topics (hiring) without the benefit of the subject matter expertise. Thus, implementation of some of the recommendations were contrary to prevailing industry and legal requirements.
- The hiring, selection, placement, and training processes are interrelated topics in the context of developing a pipeline into the FAA because one affects the other. In the FAA, many offices from different organizations are involved in the process and must be involved in any changes to the processes. Human Resources, the FAA Academy, and the Air Traffic Organization (ATO) are key organizations in this process, but they were not always involved in determining the action plans to address IRP recommendations.
- Because the air traffic control specialist is a federal government position, changes to the process may require compliance with pertinent federal sector guidelines.

Issues to Address

Money

- Who funds?
- Potential for grants
- Startup money for equipment – FAA funded?
- Scholarships and financial aid

Curriculum Standards and Learning Outcomes

- What will be the standards/credentials?
- What level are the providers going to be held to (accountability)?
- Oversight
- Technical requirements
- Standardization, uniformity across the board – What are the criteria for the curriculum?
- Ownership of curriculum
- What end-product requirement is expected?
- Knowledge Skills and Abilities (KSAs) for Stage 1
- Anything that needs improvement
- Standardization
- Survey facilities for feedback and input

Culture Change within FAA

- Communication and buy-in
- Transition from current model to new model

Issues to Address (cont.)

Oversight – specific to the ATO (how to set up a system comparable to AFS and AOV)

- Examining authority
- Verification of knowledge and skills conducted at the end of training (skill assessment), evaluation
- Instructor certification
- Who does it?
- Metrics of program performance
- Recordkeeping

Providers

- Who? How many?
- Free-market determination or regulated?
- Resources (human, facility)
- Certification process - How do you become a provider?
- Relationship between the FAA and provider
- Simulation requirement?
- Accredited and/or certificated?

Pipeline – (correlates with Training Models)

- Barriers to entry
- Entry requirements
- Hiring
- Throughput (metering of pipeline)
- Recruitment
- Suppliers/providers have to stay connected to FAA
- Just-in-time training
- Skill degradation

Issues to Address (cont.)

Training Models

- ETP
 - 4 year University/College Degree Program, 2 year University/College Degree Program or an ATC Certificate Program? Or all three?
 - Will the External Training Provider specialize or offer all Stage 1 Courses?
 - Will there be a requirement for Rulemaking? If so, will the rule spell out the requirements leaving it up to each ETP to determine which courses they offer? Will the FAA certify the ETPs? (similar to Part 141/142)
- Enforceable Policy
 - Is a Contractual Agreement needed between the FAA and the ETP?
 - Standards need to be established to measure the ETP's performance.
 - How do we remove the ETP/s that are not meeting the standards/requirements? (There was no oversight or elimination of the underperforming CTI schools).
 - Will Rulemaking be the source of control? Will there be others?

Issues to Address (cont.)

Training Models (cont.)

- Stage 1 Training
 - ATC Certificate Program not concerned with general education requirements concentrating on the FAA Academy Curriculum lasting perhaps 1 year or less.
 - 2 year Degree Programs encompass the requirements of an ATC Certificate Program and meet the accreditation requirements of their accrediting body. The ATC Certificate Program is taught in the last year to prevent skillset degradation and to deliver a “just in time employee.”
 - 4 year Degree Programs will structure their curriculum so that general education requirements are all met within the first 2-3 years of the program and the ATC Certificate Program is taught in the last year to prevent skillset degradation and to deliver a “just in time employee.”
 - Additional Thoughts:
 - ATC Certificate training at the end makes the students “fresh” for the field
 - By holding the ATC Certificate training at the end of the degree path, students can complete the “core curriculum” required by the college/university at another institution and then transfer in. This would allow a student to have more flexibility in where they live during the early part of their education, possibly controlling degree costs better.
 - By offering the intense ATC classes last, the student will be able to tell fairly quickly that ATC is not for them. They could remove themselves from the program while still having earned a significant amount of core curriculum credits that can be shifted to a different degree.
- Concerns/Goals:
 - Supply exceeds demand or vice versa
 - Must be streamlined to prevent getting bogged down, dysfunctional and expensive. Must be a well-oiled machine.

Issues to Address (cont.)

Risks

- Costs
- Student success
- Social risk
- Political
- Legal
- Risks to ETPs
- Student risks
- Transition from current model to new model
- Sequestration
- Administration change – new ideas about how to do things
- Privatization
- Stability for the ETP
- Accountability for the ETP

Notes and Feedback

Rotorcraft Occupant Protection Working Group (ROPWG) Update for ARAC

July 19, 2016

Presented by
Dennis Shanahan, ROPWG Chair

Extension of Task 2 Report

- **ARAC extended May 5, 2016 deadline by nine months during March, 2016 ARAC meeting**
- **ROPWG working hard to complete Task 2 report within six months**

ROPWG Status

- **Multiple telecoms held**
- **Working with FAA economist from APO**
 - Better definition of baseline and affected population
 - Reviewing format and organization of cost-benefit report
- **Added additional specialist from Leonardo Helicopters (Finmeccanica AgustaWestland) –**
- **Working Group meeting in Fort Worth, July 26-27, 2016**
- **Goal is to present Task 2 Cost-Benefit report prior to next ARAC meeting**



Federal Aviation
Administration

Rotorcraft Bird Strike Working Group Status



Presented By: FAA Rotorcraft Directorate

Gary Roach

Date: July 19, 2016



Membership Overview

- **Co-chairs and membership have been submitted and are pending FAA Rulemaking Director and ARAC Chair approval.**
- **We received names from numerous entities and 16 were chosen. The following were chosen:**
 - 7 Helicopter OEMs.
 - 3 Helicopter Operators.
 - 2 Associations (representing OEMs and Operators).
 - 1 Group that represents Vendors/Suppliers.
 - 1 Technical expert in bird behavior.
 - 2 Authorities (FAA and EASA).



Membership Overview

- **Membership**

- The team is proposed to be lead by two co-chairs, one from an OEM and one from an operator.
- The team is expected to consist of 13 voting members and 3 non-voting members.
- Well rounded group of backgrounds and represents the industry.
- Because the team membership is pending approval the specific names have not been included and will be made available when approved.



Meeting Status

- **First meeting date - TBD**



Loadmaster Certification Working Group

Chairperson:

Mark Phaneuf of Air Line Pilots Association (ALPA)

Working Group:

Darrin Noe of Boeing

Martin McKinney of United Parcel Service

Richard Brose of Federal Express

Steve Brewer of Kalitta Air

Eric Kaupa of Bendix King representing the Professional Loadmaster Association

George Paul representing National Air Carrier Association (NACA)

Yvette Rose of Cargo Airline Association (CAA)

Stephen Banks of National Airlines

Jeff Olver of Alaska Airlines

Peter Mejia of Northern Air Cargo

Rusty Fine of Atlas Air

FAA:

Sandra Long Rulemaking

Paul Greer Senior Attorney

Stephen Grota Cargo Focus Team



Aviation Rulemaking Advisory Committee

Airman Certification System Work Group Update

■ Work Accomplished and Developments since last briefing

○ Airman Certification Standards

- Private Pilot – Airplane and Instrument Rating – Airplane Airman Certification Standards (ACS) implemented June 15, 2016
 - [Private ACS](#)
 - [Instrument ACS](#)
- Instructor ACS
 - Subgroup finalizing ACS
 - Document cleanup and double-checking reference tasks
 - Tabletop Prototype process drafted
 - Gather feedback from FAA inspectors and designated pilot examiners on construction and content of AI ACS
 - Use feedback to further refine as necessary
 - Two FSDOs –Orlando and Scottsdale
 - Run through the remaining summer months – 45 days
 - Federal Register publication later this year
- CAX and ATP
- [UAS ACS](#)
 - Incorporated ACS WG developed structure
- AMT
 - Subgroup established
 - Reviewing
 - AC 120-MFRM – resource for risk management task elements
 - Draft AMG ACS – incorporates existing PTS, 8082-3A and AMT O&P Test Generator with Part 147 WG recommendations layered in
 - General Handbook (FAA-H-8083-30)

- **Testing**
 - All active PAR and IRA test questions have been aligned with ACS
 - Feedback – “I didn’t recognize any of the questions, but I knew how to do them all”
 - Changes to knowledge test banks documented on [FAA website](#)
- **Guidance**
 - UAS guidance a top priority for the agency
 - Authorized instructor Handbook – Interim Edition
 - CT-8080s (computer testing supplements)
 - New editions aligned to new standards effective June 13
 - Handbooks
 - Weight & Balance - July 2016
 - Pilots Handbook of Aeronautical Knowledge – July 2016
 - Airplane Flying Handbook – September 2016
- **Change Management**
 - ACS Deployment Plan drafted and implemented
 - FAA upper management sponsorship and support
 - Required training for AFS employees
 - ACS communications plan
 - Multiple outreach efforts – presentations, articles, webinars, etc.
 - FAA focus team with dedicated email to funnel inquiries and coordinate
- **Next Meetings**
 - September 13-14, 2016, GAMA, DC
 - December 6-7, NBAA, DC

Submitted on behalf of the ACS working group

By

David Oord

Sr. Director, Regulatory Affairs

Aircraft Owners and Pilots Association

ACSWG Chair



Transport Airplane and Engine (TAE) Report

July 19, 2016

Outline

- Summary
- Working Groups Updates
 - Engine Endurance Testing
 - Airworthiness Assurance
 - Flight Test Harmonization
 - Metallic and Composite
 - Crashworthiness and Ditching

TAE WORKING GROUPS

Status Summary

Status	Working Group	Comments
G	Engine Harmonization :	150 Hour Engine Endurance Testing (14 CFR 33.87) Due date: 2 Q. 2017 On Target
G	Airworthiness Assurance	Implementation of WFD/aging aircraft activities Supporting Metallic and Composite Working Group. Tasking concludes January 2017
G	Flight Test Harmonization	Transport Airplane Performance and Handling Characteristics - Phase 2 Due date: April 2017 A revised schedule and a new Phase 3 tasking proposal.
Y	Metallic and Composite	Work Plan accepted 11/4/2015 Due date: January 2017 Due to initial delays and needed input from the AAWG, WG requests one year extension.
Y	Crash Worthiness and Ditching	Work plan accepted April 2016 Due date: 6/2017 Due to initial delays and scope of the work, WG requests nine months extension

Engine Harmonization WG

Tasking:

- Engine Endurance Testing - Current 14 CFR 33.87 rule is outdated relative to modern high bypass ratio, high pressure ratio engines
- New test is required which will meet the intent of an accelerated endurance run on a type design engine configuration

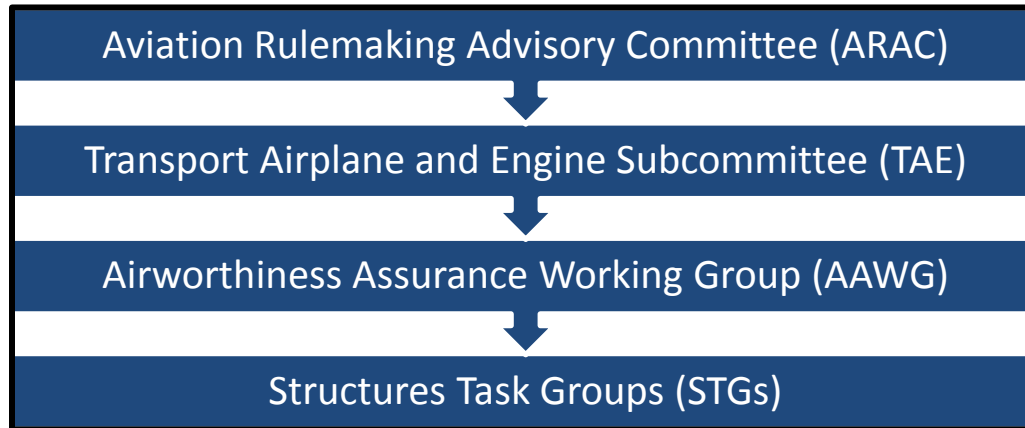
Chair: Peter Thompson, GE Aviation

Due Date: Second quarter 2017; Report due to TAE Dec. 2016

Current Status

- Proposed alternate test being finalized
 - Cyclic content & severity/durability definitions agreed
- Report structure defined
 - Report submittal to TAE by 4Q16
 - Timing tight -approximately one month behind- but working to meet the deadline
- Generally, good support from all participants

AAWG Update



Last Meeting – March 14, 15 (Everett, WA)

- 49 Attendees
- 4 regulatory authorities (FAA, EASA, TCCA, ANAC)
- 5 manufacturers (Airbus, Boeing, Bombardier, Embraer, Gulfstream, Lockheed)
- 12 operators

No additional Face to Face meeting- Virtual meetings/coordination

Current Status

- Corrosion Protection and Control Program (CPCP)
 - Developing guidance document to standardize definition of Levels 2 and 3 corrosion
- Removable Structural Components (RSC)
 - Consistent with A4A Published guidance document (July 2015) encouraging OEMs to complete definition and listing of RSCs for their products
 - 737NG RSC listing was sent to operators in December 2015

Current Status

Tasks in Support of the F&DT WG

- **Rotorburst** –Propose a revision to guidance material that is less susceptible to varying interpretations
 - Plan is to clarify FAA guidance allowing averaging of 1 in 20
 - AC 20-128A being revised to clarify minimization and risk requirements
 - AC 25.571 being revised to cross reference AC 20-128A and clarify what “likely” means from 25.571(e)
 - Target to complete these tasks and make recommendation to F&DT WG is **3Q2016**
- **Structural Damage Capability (SDC)** –Recommend incorporation of some level of fail safety back into FAR § 25.571
 - focusing on guidance material; change to regulation will follow
 - AAWG will introduce SDC into Part 25 by first revising AC 25.571
 - Will next evaluate proposals from industry representatives
 - Target to complete these tasks and make recommendation to F&DT WG is **3Q2016**

Flight Test Harmonization WG

Tasking:

- Transport Airplane Performance and Handling Characteristics - Phase 2
- Group to develop standards for fly-by-wire, takeoff and landing performance, and handling characteristics

Chairs: Brian Lee, The Boeing Company & Christine Thibaudat, Airbus

Due Date: April 2017; report to be submitted to TAE in January, 2017

Status:

- A total of 12 areas were included in the tasking
- At the March 2016 meeting WG assessed the remaining work statement and reprioritized the scope
- Except for guidance material for topic 9 (Wet Runway stopping Performance) all other topics will be completed by the due date (next slide)
- WG requesting that the remaining two lower priority items be shifted to Phase 3

New Proposal

Topic No.	Topics Phase II Due Date April 2017	Phase 3 New tasking
1	Envelope Protection	
6	Longitudinal / Lateral Stability	
2	Adaptation for Flight in Icing	
12	Steep Approach Landing	
13	Out of Trim	
7	Side Stick Controls	
10	Runway Excursion Hazard Classification	
9	Wet Runway Stopping Performance	
11	Stall Speed in Ground Effect	
14	Tailwind / Crosswind (See Next Slides)	
16	Handling Qualities Compliance Finding	
15	Pilot Induced Oscillation/ Airplane Pilot Coupling	



Wet Runway Stopping Performance

Detailed Schedule

- 11 January, 2017 Transmit Interim Report to TAE/ARAC
 - To include draft regulatory language, not necessarily finalized guidance material
 - Address task 1 of this work plan: Recommend steps that should be taken to address this safety issue
 - Tasks 2 and 3 will not be done by this date
 - Task 2: Recommend harmonized means of determining wet runway landing performance...
 - Task 3: Consider whether to add a type certification standard in 25.125 requiring determination of wet runway landing distances
- 1 February, 2017 Propose guidance material
- 15 March, 2017 Final vote on Regulations and Guidance material
- 1 April, 2017 Draft 1 of Final Report
- 1 May, 2017 Draft 2 of Final Report
- 15 June, 2017 Voting on Final Report
- 1 July, 2017 Final Report transmittal to TAE/ARAC

Metallic and Composite WG

Tasking:

- Recommendations regarding DTA and fatigue requirements

Chair: Mike Gruber, The Boeing Company

Due Date: January 2017

Status:

- At the March 16-18 meeting WG reviewed and evaluated details of the tasking
- Defined sub-teams – a total of 12; each addressing a specific item
- Based on the assessment the WG is requesting an extension of one year.

Summary of Tasking

- Increased use of composite and hybrid structures has driven concerns whether the damage-tolerance and fatigue airworthiness standards and advisory material are adequate.
 - Task - Provide recommendations regarding revision of the damage-tolerance and fatigue requirements & associated guidance material

Working group to address and provide recommendations on the following:

1. Threat Assessment
2. Emerging material technology
3. Inspection Thresholds
4. Large damage capability - **being worked by AAWG**
5. Aging, WFD & LOV (*including ultimate strength & full-scale fatigue test evidence*)
6. Testing (related to composite and hybrid materials *including WFD test demonstration*)
7. Repairs (bonding / bolting)
8. Modifications
9. EASA aging aircraft rulemaking and harmonization
10. Rotorburst – **being worked by AAWG**
11. Disposition of cracking during full-scale fatigue testing
12. Accidental damage inspections included in the ALS conflicts w/ MSG-3 program

Team Members

Working group members

- | | | |
|-----|--------------------------|------------------------|
| 1. | Michael Gruber | (Boeing) – Chairperson |
| 2. | Chantal Fualdes | (Airbus) |
| 3. | Salamon Haravan | (Bombardier) |
| 4. | Benoit Morlet | (Dassault Aviation) |
| 5. | Antonio Fernando Barbosa | (Embraer) |
| 6. | Kevin Jones | (Gulfstream) |
| 7. | Toshiyasu Fukuoka | (Mitsubishi Aircraft) |
| 8. | David Nelson | (Textron Aviation) |
| 9. | Phil Ashwell | (British Airways) |
| 10. | Doug Jury | (Delta Air Lines) |
| 11. | Mark Boudreau | (FedEx) |
| 12. | Eric Chesmar | (United Airlines) |

Status of Tasking

- Tasking approved (January '15)
- Approved list of voting members (May '15)
- 12 sub-teams identified
 - 2 material independent topics assigned to AAWG
 - SDC (structural damage capability)
 - Rotorburst
- Three face to face meetings so far; One more planned for October 2016
- Regular telecons; Typically one per month

Schedule

#	Major Tasks/Deliverables	Date	Status	Comments
1	ARAC Tasking Published in Federal Register	1/26/15	Complete	
2	ARAC Working Group (WG) Chair and member selected & notified	5/5/15	Complete	
3	WG Plan accepted by TAE	11/4/15	Complete	Submitted 7/20/15 Extension request submitted 5/3/16
4	Face to Face WG Meetings	6/16/15 9/14/15 3/16/16 10/16	Complete Complete Complete	Kick-off meeting Everett, Wa . Montreal Canada Everett, Wa. (leverage AAWG mtg) Washington DC (leverage AAWG mtg rotor-b & LDC recommendation available)
5	Report Status to TAE	11/4/15 April 2016 Oct 2016	Complete	
6	Planned Date to submit Final Report to TAE	10/2016 10/2017		Pending extension
7	Final Report Due to FAA	1/2017 1/2018		Pending extension

Extension Request

- WG requested an extension of 12 months to address:
- Two significant topics requiring extra effort in order to reach agreement on approach
 - SDC (structural damage capability)
 - Rotorburst
- Resulting delay in progress of other sub teams due to linkage to SDC
 - 6 month delay in establishing working group

Crashworthiness and Ditching WG

Tasking:

- Recommendations regarding incorporation of airframe level crashworthiness and ditching standards into Part 25.

Chair: Kevin Davis, The Boeing Company

Due Date: June 2017

Status:

- Productive kickoff meeting on Dec. 8-9, 2015, excellent participation
- Detailed discussions concerning the tasking
- Established sub-teams to develop a schedule in support of the work plan
- Next meeting scheduled for October 4-6, 2016, in Wichita, Kansas

Team Members

Working group members

Kevin Davis	(Boeing Commercial) – Chairperson
John van Doeselaar	(Airbus)
Akif Bolukbasi	(Boeing Military Vertical Airlift)
Milenko Milekic	(Bombardier)
Clóvis Augusto Eça Ferreira	(Embraer)
Olena Zagoskina	(Cascade Aerospace)
Matthias Waimer	(German Aerospace Center (DLR))
Toru Sakagawa	(Mitsubishi Aircraft Corporation)
Vincent Jacques	(Dassault Aviation)
Candace K. Kolander	(Association of Flight Attendants)
Heidi R. Moore	(Naval Air Systems Command)
Karen E. Jackson	(NASA)
Jack Caughron	(Gulfstream Aerospace Corporation)
Gerardo Olivares Ph.D.	(National Institute of Aviation Research)
Dan Hoverson	(Textron Aviation)

Summary of Tasking

- Provide recommendations regarding the incorporation of airframe-level crashworthiness and ditching standards into Title 14, Code of Federal Regulations (14 CFR) part 25 and development of associated advisory material.

Status of Tasking

- Tasking approved (June '15)
- Approval of the chairman and members (October '15)
- 4 sub-teams
 - Scope and definition
 - Review historical data, summarize existing data, develop recommendations for ditching and crashworthiness
 - Crashworthiness
 - Review existing rules and guidance, identify potential new rules or guidance, estimate cost/benefit, document recommendations
 - Ditching
 - Review existing rules and guidance, identify influencing factors, identify potential changes to rules and guidance, document recommendations
 - Cabin safety equipment and operational requirements
 - Review existing rules and guidance, review potential for new rules and guidance, develop recommendations, relay recommendations back to sub-teams 2 and 3
- Two face to face meeting so far, a third one planned for October; plus telecons.

Working Group Request

- Requests approval of an extension of nine months due to:
 - Late establishment of team following tasking
 - Additional time necessary for report approval process
 - Also, accommodate the extensive review of accident reports as needed

Schedule

#	Major Tasks/Deliverables	Date	Status	Metric	Comments
1	ARAC Tasking Published in Federal Register	4 June '15	Complete	Completed	
2	ARAC Working Group (WG) Chair and members selected & notified	October '15	Complete	Industry Representation	
3	WG Plan submitted to TAE	April '16	Complete	Plan Submitted	Requested extension
4	Face to Face WG Meetings	December '15 April '16 October '16	Complete Complete		
5	Planned Date to submit Final Report to TAE	05/2017			Propose December '17
6	Final Report Due to FAA	06/2017			Propose March '18