Dated: February 19, 2015.

Mary Burce Warlick,

Principal Deputy Assistant Secretary, Bureau of Energy Resources, U.S. Department of State.

[FR Doc. 2015–04033 Filed 2–25–15; 8:45 am]

BILLING CODE 4710–07–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 March 19, 2015, starting at 1:00 p.m. Eastern Standard Time. Arrange oral presentations by March 12, 2015.

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: Renee Pocius, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591, telephone (202) 267- 5093; fax (202) 267–5075; email *Renee.Pocius@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 March 19, 2014, at the Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591.

The Agenda includes:

1. Request for Clarification
   a. Avionics Systems Harmonization Working Group (TAE)—Phase 2 Low Airspeed Alerting
2. Recommendation Reports
   a. AC 120–17A Maintenance Control by Reliability Methods (ARAC)
   b. Engine Harmonization Working Group (TAE)—Engine Bird Ingestion
3. Status Reports From Active Working Groups
   a. Airman Certification Systems Working Group (ARAC)
   b. Aircraft Systems Information Security/Protection (ASIS/P) Working Group
   c. Airworthiness Assurance Working Group (TAE)
   d. Engine Harmonization Working Group (TAE)—Engine Endurance Testing Requirements—Revision of Section 33.87
   e. Flight Test Harmonization Working Group (TAE)—Phase 2 Tasking
   f. Materials Flammability Working Group (TAE)—
   g. Transport Airplane Metallic and Composite Structures Working Group (TAE)—Transport Airplane Damage-Tolerance and Fatigue Evaluation
4. New Tasks
   a. Transport Airplane Crashworthiness and Ditching Evaluation (TAE)
5. 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 March 12, 2015. 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 outside the Washington metropolitan area are responsible for paying long-distance charges.

The public must arrange by March 12, 2015 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 February 13, 2015.

Lirio Liu,

Designated Federal Officer, Aviation Rulemaking Advisory Committee.

[FR Doc. 2015–03977 Filed 2–25–15; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration (FHWA)

Notice of Final Federal Agency Actions on Proposed Highway in California

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of Limitation on Claims for Judicial Review of Actions by the California Department of Transportation (Caltrans), pursuant to 23 U.S.C. 327 and other Federal agencies.

SUMMARY: The FHWA, on behalf of Caltrans, is issuing this notice to announce actions taken by Caltrans, that are final within the meaning of 23 U.S.C. 139(*l*)(1). The actions relate to a proposed highway project, Interstate 5 from the cities of San Clemente to San Juan Capistrano in Orange County, California. Those actions grant licenses, permits, and approvals for the project.

DATES: By this notice, the FHWA, on behalf of Caltrans, is advising the public of final agency actions subject to 23 U.S.C. 139(*l*)(1). A claim seeking judicial review of the Federal agency actions on the highway project will be barred unless the claim is filed on or before July 27, 2015. If the Federal law that authorizes judicial review of a claim provides a time period of less than 150 days for filing such claim, then that shorter time period still applies.

FOR FURTHER INFORMATION CONTACT: Smita Deshpande, Branch Chief, California Department of Transportation District 12, Division of Environmental Analysis, 3347 Michelson Drive, Suite 100, Irvine, CA 92612, during normal business hours from 9:00 a.m. to 5:00 p.m., telephone (949) 724–2245, email *smita.deshpande@dot.ca.gov.*

SUPPLEMENTARY INFORMATION: Effective July 1, 2007, the Federal Highway Administration (FHWA) assigned, and the California Department of Transportation (Caltrans) assumed environmental responsibilities for this project pursuant to 23 U.S.C. 327. Notice is hereby given that Caltrans has taken final agency actions subject to 23 U.S.C. 139(*l*)(1) by issuing licenses, permits, and approvals for the following highway project in the State of California. The project proposes to add one high-occupancy vehicle (HOV) lane in each direction on Interstate 5, reestablish existing auxiliary lanes and construct new auxiliary lanes, and improve several existing on- and off-ramps. The project limits extend from 0.4 miles (mi) south of the Avenida Pico Undercrossing (UC) (Post Mile [PM] 3.0) to 0.1 mi south of the San Juan Creek

AVIATION RULEMAKING ADVISORY COMMITTEE

RECORD OF MEETING

MEETING DATE: March 19, 2015

MEETING TIME: 1 p.m.

LOCATION: Federal Aviation Administration
800 Independence Avenue, SW.
10th Floor
MacCracken 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 February 26, 2015 (80 FR 10564).

ATTENDEES: **Committee Members**

Todd Sigler	The Boeing Company (Boeing), *ARAC Chair*
Dr. Tim Brady	Embry-Riddle Aeronautical University (ERAU), *ARAC Vice Chair*
Chris Baum*	Air Line Pilots Association, International (ALPA)
Michelle Betcher	Airline Dispatch Federation (ADF)
Craig Bolt	Pratt & Whitney *Transport Airplane and Engine (TAE) Subcommittee, Chair*
Ambrose Clay	National Organization to Insure a Sound Controlled Environment (NOISE)
Mack Dickson*	Experimental Aircraft Association (EAA)
Gail Dunham*	National Air Disaster Alliance/Foundation (NADA/F)
Stéphane Flori*	AeroSpace and Defence Industries Association of Europe (ASD)
Paul Hudson	Aviation Consumer Action Project (ACAP)
Mark Larsen*	National Business Aviation Association (NBAA)

Lirio Liu	Federal Aviation Administration (FAA) *Office of Rulemaking, ARM–1* *Designated Federal Officer (DFO)*
Paul McGraw	Airlines for America (A4A)
Thomas Mickler	European Aviation Safety Agency (EASA)
George Novak	Aerospace Industries Association (AIA)
David Oord	Aircraft Owners and Pilots Association (AOPA)
George Paul	National Air Carrier Association (NACA)
Lorelei Peter	Federal Aviation Administration (FAA) *Office of the Chief Counsel, AGC−200*
Bob Robeson	Federal Aviation Administration (FAA) *Office of Aviation Policy and Plans, APO–300*
Yvette Rose*	Cargo Airline Association (CAA)
Jennifer Sunderman	Regional Airline Association (RAA)
David Supplee*	International Association of Machinists and Aerospace Workers (IAM)
David York	Helicopter Association International (HAI)
Attendees	
Clark Badie*	Honeywell International Corporation
Kevin Berger	FedEx Corporation
Dale Bouffiou	Federal Aviation Administration (FAA) *Office of Rulemaking, ARM-20*
Tom Charpentier*	Experimental Aviation Association (EAA)
Jim Crotty	Federal Aviation Administration (FAA) *Office of Rulemaking, ARM–200*
Melanie Cox	General Electric (GE) Aviation
Chris Demers*	Pratt & Whitney
Mélanie Drouin	Transport Canada – Civil Aviation (TCCA)
John Dugan	Federal Aviation Administration (FAA) *Aircraft Maintenance Division, AFS–330*

Jeff Gardlin*	Federal Aviation Administration (FAA) *Transport Airplane Directorate, ANM−115*
Karen Grant*	Federal Aviation Administration (FAA) *New England Region–Aircraft Certification Service Engine and Propeller Directorate, ANE–110*
Tom Groves*	Federal Aviation Administration (FAA) *Transport Airplane Directorate, ANM-116*
Katherine Haley	Federal Aviation Administration (FAA) *Office of Rulemaking, ARM–203*
Matthew Hallett	PAI Consulting
Ron Little	Delta Air Lines (Delta)
Ken Mahan	Federal Aviation Administration (FAA) *Aircraft Maintenance Division, AFS–330*
Sol Maroof*	Federal Aviation Administration (FAA) *Airworthiness Division, AIR–100*
Suzanne Masterson*	Federal Aviation Administration (FAA) *Northwest Mountain Region−Transport Airplane Directorate, ANM–115*
Les McVey*	GE Aviation
Dorina Mihail*	Federal Aviation Administration (FAA) *New England Region–Aircraft Certification Service Engine and Propeller Directorate, ANE–142*
Cheryl Miner	Federal Aviation Administration (FAA) *Office of Aviation Policy and Plans, APO–300*
Dave Mikkelson*	Allegiant Travel Company (Allegiant)
Steve Paasch*	Federal Aviation Administration (FAA) *Aircraft Engineering Division, AIR–130*
John Piccola*	Federal Aviation Administration (FAA) *Transport Airplane Directorate, ANM−113*
Renee Pocius	Federal Aviation Administration (FAA) *Office of Rulemaking, ARM–024*
Bryan Riffe*	American Airlines
Mary Schooley*	Federal Aviation Administration (FAA) *Northwest Mountain Region–Transport Airplane Directorate, ANM–111*

Alan Strom*	Federal Aviation Administration (FAA) *New England Region–Aircraft Certification Service Engine and Propeller Directorate, ANE–142*
Jan Thor*	Federal Aviation Administration (FAA) *Transport Airplane Directorate, ANM−113*
Judith Watson*	Federal Aviation Administration (FAA) *New England Region–Aircraft Certification Service Engine and Propeller Directorate, ANE–111*
James Wilborn*	Federal Aviation Administration (FAA) *Northwest Mountain Region−Transport Airplane Directorate, ANM–117*
Ian Won*	Federal Aviation Administration (FAA) *Transport Airplane Directorate, ANM−115*
John Yakubowsky	Private Citizen

*Attended via teleconference.

WELCOME AND INTRODUCTION

Mr. Todd Sigler, ARAC Chair, called the meeting to order at 1:05 p.m. and thanked the ARAC members and the public for attending. He invited the attendees to introduce themselves.

Ms. Lirio Liu, DFO, noted changes in representation to the ARAC, specifically Mr. Mack Dickson (EAA), Mr. Paul McGraw (A4A), and Ms. Jennifer Sunderman (RAA). Ms. Liu read the required Federal Advisory Committee Act, Title 5, United States Code Appendix 2 (2007) statement.

Ratification of Minutes

Mr. Sigler stated the first item on the agenda is ratification of the minutes from the December 18, 2014, meeting. He asked for any revisions or amendments to the draft minutes circulated before the meeting. Without revisions or questions, the ARAC ratified the minutes.

REQUEST FOR CLARIFICATION

Avionics Systems Harmonization Working Group (ASHWG) (TAE)—Phase 2 Low Airspeed Alerting (Attachment 1)

Mr. Sigler introduced Mr. Clark Badie, Honeywell International Corporation, to discuss the ASHWG. Mr. Badie stated the FAA used the 2013 ASHWG recommendation report to develop design mitigations and cost/ benefit analysis. He noted the FAA asked the ARAC to reconvene the ASHWG to review the FAA's evaluation of the systems and additional information available from other concluded studies of low airspeed alerting analysis.

Mr. Badie stated the ASHWG focused on feedback to two low speed alerting design mitigation options provided by the FAA report, "Part 121/129 Low Airspeed Alerting Analysis, Review of Design Mitigations." After review, he explained the ASHWG recommended consideration of a third design

mitigation. Mr. Badie noted the ASHWG also reviewed cost data expressed in the FAA report. He stated the ASHWG has provided some additional costs and fleet data/sizing for FAA consideration in the cost/benefit analysis.

Ms. Liu stated the next step is for the ARAC Chair to formally transmit the ASHWG response to the FAA for consideration.

RECOMMENDATION REPORT

Maintenance Reliability Program Working Group (MRPWG) —Advisory Circular (AC) 120–17A, Maintenance Control by Reliability Methods (Attachment 2)

Mr. Sigler introduced Mr. Ron Little, Delta, the MRPWG Chair, to deliver the recommendation report and additional materials.

Mr. Little provided background on the formation of the MRPWG, which stemmed from a June 2013 ARAC meeting at which the ARAC accepted the tasking to review and possibly rewrite AC 120–17A, Maintenance Control by Reliability Methods. Mr. Little stated the request was based on National Transportation Safety Board (NTSB) recommendation A–09–110, which identified contradictory philosophies regarding "on-condition" maintenance between AC 120–17A and AC 120–16F. He explained AC 120–17A refers to Maintenance Steering Group (MSG)-2 methodology, which needs to be updated to the current methodology contained in MSG–3. Mr. Little stated the MRPWG also reviewed additional guidance material for potential conflicts in language and methodology.

Mr. Little stated the MRPWG identified four major findings based on the ARAC tasking. The MRPWG:

1. Validated NTSB Safety Recommendation A–09–110.
2. Determined AC 120–17A is outdated and contains serious deficiencies requiring revision.
3. Determined the goal of a reliability program in AC 120–17A is to maintain inherent reliability, which is anecdotal to operators and AC 120-17A needs to be revised.
4. Identified additional FAA documents requiring harmonization with updated methodologies to be contained in a revised AC 120–17A.

Mr. Little listed the six goals and related guidelines of the MRPWG. He explained the MRPWG agreed an operator's reliability program should—

1. Define, establish, and maintain an effective maintenance schedule.
2. Define the standards for determining the time limitations contained within the air carrier's maintenance schedule.
3. Define acceptable levels of reliability performance of the aircraft and its powerplant, systems, and components.
4. Collect data to monitor, analyze, and document reliability performance relative to acceptable levels.
5. Define appropriate responses to identified unacceptable levels of reliability.
6. Develop, revise, and approve the methods, processes, and controls for the Reliability Program.

Mr. Little stated the MRPWG is submitting to the ARAC three documents: a recommendation report, a draft AC, and process/analysis flowcharts. He stated the three documents must be used and cross-referenced to fully comprehend the intent of the MRPWG's conclusions. Mr. Little added the MRPWG's recommendation report contains 31 recommendations, divided into four major categories:

1. Scope, structure, and philosophy of the guidance material;
2. Recommendations for AC guidance on the definition, data, and methods that constitute a reliability program;
3. Roles and responsibilities of an organization with an approved reliability program; and
4. Harmonization with other regulatory material.

Mr. Little enumerated the key discussion items and findings established by the MRPWG. He stated an assumption held by the MRPWG in construction of all recommendations was that an operator using the guidance material would have a viable, functioning Continuing Analysis and Surveillance System (CASS). Mr. Little selected a representation of the MRPWG's recommendations to demonstrate the breadth of the report. Specifically, he listed the MRPWG's key discussion items and findings, including—

- FAA staff needs to be aware that an operator is granted authority under Operations Specification D074 to approve changes without further FAA approval;
- Clearly defined terms relating to a reliability program are needed;
- Complex processes need to be displayed using flowcharts;
- The FAA should approve the operator-defined acceptable performance levels instead of requiring maintenance of the inherent reliability of the aircraft;
- Operators must have a process for selecting a sample size that represents its fleet related to scheduled maintenance findings;
- Use different types of data and analysis methods based on the different types of tasks;
- Categorize the different tasks within an operator's maintenance schedule and identify various sources of data for analysis, for example, Failure Effect Category (FEC) 8 tasks are not safety tasks and do not produce operational data but can be used to support an interval change;
- Establish data requirements and relevance for adjusting time limitations of a particular task (only significant and related findings should be used to adjust a task's interval); and
- Determine whether maintenance review board report revisions may be adopted by an operator through an abbreviated analysis that would only review the operator's operational reliability data directly related to the revised tasks. The operator is not required to follow the complete standards for determining time limits to substantiate the new interval. Instead, the operator will need to substantiate how the interval will impact operational reliability.

Mr. Ambrose Clay, NOISE, asked what mechanism should be used to address operators with an inadequate CASS program. Mr. Little responded the MRPWG did not address the issue, because the MRPWG held the assumption that an operator must have a viable CASS in order to establish a reliability program. He stated an FAA Certificate Management Office might control an operator's ability to establish a reliability program if it has an insufficient CASS or Continuous Airworthiness Maintenance Program.

Mr. Paul Hudson, ACAP, asked for clarification on whether the operator or the FAA would set the reliability standards. Mr. Little explained the operator sets the reliability standard, which is subject to approval by the FAA. He added economics drive the decision, not safety. Mr. Hudson asked if the MRPWG established a minimum standard. Mr. Little responded the MRPWG determined the AC does not need to define a minimum reliability standard, but rather the FAA and industry should establish a minimum. Mr. Hudson asked if the MRPWG considered passenger inconvenience. Mr. Little responded the MRPWG considered passenger inconvenience as a function of economic factors, including delays, turn backs, and cancellations.

Dr. Tim Brady, ARAC Vice Chair, asked if the FAA would approve the change if an operator wanted to decrease the reliability approval rate. Mr. Little stated he could not speak for the FAA, but in his experience, an operator would not accept such a change internally. He added that the operator is responsible for monitoring data measuring performance against operational defined standards. Mr. Little noted the operator must take action to come back into compliance if the operator deviates from the FAA accepted level of compliance.

Mr. Sigler asked if it is safe to assume the recommendations do not conflict with current regulations. Mr. Little replied in the positive.

Mr. Little responded to a question from Mr. Bob Robeson, FAA, by clarifying FEC 8 task failures are latent, not active.

Mr. Little stated the MRPWG recommendation report includes a list of guidance material the FAA will need to update to harmonize with the revised AC 120-17A. He indicated the recommendation report does not include dissenting opinions, although active discussion and debate was encouraged.

Ms. Gail Dunham, NADA/F, stated the MRPWG was comprised of management personnel and she believed their management approach influenced the products. Mr. Little explained the MRPWG did contain representatives from different components of the aviation industry.

Mr. Sigler moved to accept the recommendation report and associated work products. Without objection, the ARAC accepted.

Engine Harmonization Working Group (EHWG) (TAE)—Engine Bird Ingestion

Mr. Sigler introduced Mr. Craig Bolt, Pratt & Whitney, to deliver the recommendation report. Mr. Bolt stated the EHWG produced the recommendation report with no dissenting opinions and completed the task on schedule. Mr. Bolt explained the EHWG was tasked to address NTSB safety recommendations and provide a recommendation report addressing bird ingestion certification test standards.

Mr. Bolt stated the EHWG made a recommendation to add a demonstration—by analysis, test, or both—of a medium flocking bird core ingestion at the conditions of 250 knots indicated airspeed bird speed, with the first exposed stage rotor speed set to represent the lowest expected climb thrust at standard day condition and 3,000 feet altitude. He added the test would aim to maximize the amount of bird material entering the core. Mr. Bolt explained the demonstration would show bird ingestion into the core at an engine's maximum climb, because bird ingestion at an engine's takeoff levels do not allow bird material to reach the core because of the elevated fan blade speed. Mr. Bolt stated the engine must complete a successful 20-minute run-on demonstration after ingestion to indicate safe turn back ability.

Mr. Bolt stated the EHWG recommended no changes to the current Large Flocking Bird regulation in Title 14, Code of Federal Regulations part 33. He added the EHWG recommends AIA perform regular updates to the bird ingestion database to capture changes such as bird migratory patterns and ingestion rates.

Mr. George Paul, NACA, stated NACA reports to the Commercial Aviation Safety Team (CAST) twice a year on bird strike numbers as a monitoring action. He asked if the EHWG should replace the AIA recommended database with CAST. Mr. George Novak, AIA, indicated the EHWG should not because the databases are separate.

Mr. Sigler moved to accept the recommendation report. Without objection, the ARAC accepted.

STATUS REPORTS FROM ACTIVE WORKING GROUPS

Airman Certification System Working Group (ACSWG) (Attachment 3)

Mr. David Oord, AOPA, provided the update for the ACSWG. He stated the ACSWG entered Phase 3 of its work plan, building on tasks completed in the previous year.

Mr. Oord stated the FAA completed updates to its airman testing website, which includes the draft Private Pilot – Airplane Airman Certification Standards (ACS), a presentation introducing the ACS, and a frequently asked questions section, which is updated on an ongoing basis. He indicated the website also includes a sample exam for Private Pilot – Airplane that introduces pilots to the new coding system. He explained that under the new coding structure, if the student misses a question on the exam, a code is provided that correlates to the section of the standard the individual missed. Mr. Oord stated the website also contains a section dedicated to new and upcoming changes to airman testing, including the deletion of questions on certain topic areas on the private pilot knowledge test.

Mr. Oord stated the prototyping effort continues in conjunction with Embry-Riddle Aeronautical University in Florida. He stated the ACSWG expanded the prototype to include part 61 training and Designated Pilot Examiners. He added the ACSWG will expand the program to the San Antonio Flight Standards District Office as well, and the ACSWG is developing a guidebook to ensure uniformity. Mr. Oord stated the ACSWG is creating two points of contact—a centralized FAA program manager in Oklahoma City and a local subject matter expert.

Mr. Oord stated the Commercial, Airline Transport Pilot (ATP), and Handbook Task Group continues to progress. He noted the FAA team completed its validation of a draft standard for the commercial ACS and a test validation and review will follow. Mr. Oord stated the Task Group is reviewing the ACSWG recommendations for the "Pilot's Handbook of Aeronautical Knowledge" and the "Airplane Flying Handbook" to ensure risk management is included, with responses returning to the ACSWG. He noted the Task Group is currently reviewing the instrument flying, instrument procedures, and advanced avionics handbooks.

Mr. Oord stated the ACSWG finalized its draft for the ATP certificate and submitted it to the FAA. He added the Instructor Task Group continues to refine and finalize the Authorized Instructor ACS. Mr. Oord noted the FAA will publish both the ATP ACS and Instructor ACS in the Federal Register upon finalization.

Mr. Oord requested a 1-year extension of the ACSWG's charter, which expires in December 2015, until December 2016. Mr. Sigler asked if an extension to December 2016 was necessary given the goal of transitioning from pilot test standards to ACS in late 2015 or early 2016. Mr. Oord responded

the extension is necessary to allow time to transition handbooks and commercial, sport, and ATP certificates and validate the tests.

Mr. Sigler asked if the ACSWG's work remained within the scope of its tasking. Ms. Liu added the ACSWG should consult the scope of the tasking before requesting an extension of the charter, as ATP may not have been included in the scope. Mr. Novak questioned whether there is overlap in work with the ATP Aviation Rulemaking Committee and stated it would be helpful to obtain a white paper from them on the scope of their tasking. Mr. Oord confirmed there is an overlap in work. Mr. Sigler recommended allowing ARAC members to review the ACSWG tasking before voting on any extension. The ARAC agreed to review the scope and revisit the extension request at the June 2015 ARAC meeting.

Aircraft Systems Information Security/Protection (ASISP) Working Group (ASISPWG) (Attachment 4)

Mr. Steve Paasch, FAA, provided the update for the ASISPWG. Mr. Paasch reviewed the ASISPWG task, which is to recommend whether ASISP-related rulemaking, policy, and/or guidance on best practices are needed and, if so, where in the current regulatory framework such regulations would be placed. He added the ASISPWG tasks include:

- Identifying which categories of airplanes and rotorcraft such rulemaking, policy, and/or guidance should address;
- Identifying which airworthiness standards such policy and/or guidance should reference;
- Ascertaining whether security-related industry standards from Aeronautical Radio, Incorporated (ARINC), Federal Information Processing Standards (FIPS), International Organization for Standardization (ISO), National Institute of Standards and Technology, SAE Aerospace Recommended Practice (ARP) 4754a and/or SAE ARP 4761 would be appropriate for use in ASISP-related policy and/or guidance; and
- Considering international harmonization needs.

Mr. Paasch stated the schedule for the ASISP is fluid but currently calls for the submission of a recommendation report to the FAA for review and acceptance no later than 14 months from the date of the first ASISPWG meeting. The date of the first ASISPWG meeting has yet to be determined.

Mr. Paasch stated the Federal Register notice for the ASISPWG was published February 3, 2015 (80 FR 5880) and requests for ASISPWG participation were due by March 5, 2015. He noted the FAA received roughly 60 requests for participation, with 50 from private entities and 10 from Government entities.

Mr. Paasch stated the FAA will select co-chairs and members in March 2015. He added he anticipates holding the first ASISPWG meeting in April 2015.

EHWG (TAE)—Engine Endurance Testing Requirements—Revision of Section 33.87 (Attachment 5)

Mr. Bolt reviewed the EHWG's task, particularly the development of an alternate engine endurance test. He stated the EHWG continues intensive discussion on intent of the current test and the EHWG has reached agreement in principle for an alternate test. Mr. Bolt reported the EHWG reached out to engine manufacturers regarding the alternate test because it needs to make refinements to ensure redlines are adequately substantiated and matches actual engine use. He stated because of these

refinements the redline demonstration methodology will most likely be changed. Mr. Bolt explained the demonstration is test based, augmented by analysis, and "penalty running" to make up for any deficit in redline running.

Mr. Bolt stated original equipment manufacturers are working on details of the feasibility of the new test, which the EHWG hopes to have by the end of the first quarter 2016.

Airworthiness Assurance Working Group (AAWG) (TAE)

Mr. Bolt reviewed a chart outlining the AAWG meetings and structure. He stated the AAWG is developing guidance material for removable structural components. Mr. Bolt noted an AAWG Task Group developed industry guidelines and submitted them to A4A in December 2014. He stated the intent is for A4A to share the document with operators in an effort to provide common guidance to the industry on identifying and controlling removable structural components.

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

Mr. Bolt stated the FTHWG continues to meet regularly. He added the FTHWG met in October 2014 to discuss the topic of continuation of flight in icing and envelope protection and steep approach landing. Mr. Bolt noted the FTHWG held a meeting on March 9–15, 2015 to continue the work on envelope protection, stability and flight in icing topics.

Mr. Bolt stated the FTHWG is making steady progress and is on track with their work plan.

Materials Flammability Working Group (MFWG) (TAE)

Mr. Bolt stated the FAA published the tasking for the MFWG in the Federal Register in January 2015. He explained the tasking is to provide cost and benefit data for the previous ARAC recommendation. Mr. Bolt noted the MFWG was reconstituted and replacements were found for members who could no longer participate. Mr. Robeson stated Ms. Cheryl Miner, FAA, will provide economic analysis support to the MFWG. Mr. Bolt stated the MFWG has met three times since formation and expect to complete the task by September 2015.

Transport Airplane Metallic and Composite Structures Working Group (TAMCSWG) (TAE)— Transport Airplane Damage-Tolerance and Fatigue Evaluation

Mr. Bolt stated the FAA published the tasking for the TAMCSWG in January 2015. He added the FAA is currently reviewing the requests for participation in the TAMCSWG and task completion scheduled in January 2017. Mr. Robeson stated Mr. Dan Leach, FAA, will provide economic analysis support to the TAMCSWG.

NEW TASK

Transport Airplane Crashworthiness and Ditching Evaluation Working Group (TACDEWG) (TAE) (Attachments 6-13)

Mr. Sigler noted the ARAC discussed the task at its December 2014 meeting and decided to invite TAE input on the tasking.

Mr. John Piccola, FAA, stated the FAA revised the tasking after receiving TAE input. He noted there are no more open issues. Mr. Bolt added TAE appreciated the opportunity to discuss the tasking and believe it is ready to move forward, as written.

Mr. Clay stated the documentation cited a report from the United Kingdom regarding survivability factors. The report's summaries and conclusions, Section 7.1(b), included a listing of structural survivability factors also affecting passenger injuries. However, the report qualified the conclusions by information regarding seat floor strength. Mr. Clay expressed concern with passenger injuries. He asked if the TACDEWG would take into account seat pitch and distance between rows and use it in the document as input. Mr. Piccola stated the FAA is working with the report author to update the document to capture more recent accidents and newer aircraft. He added the FAA will clarify the point once the United Kingdom report is updated.

Mr. Hudson asked if there was consideration of the recent incident in Taiwan in which persons drowned after the aircraft was submerged in water. He alluded to a rule that persons should be able to evacuate in 90 seconds even in the event that half the exits are blocked and low lighting conditions occur. Mr. Piccola stated the incident is still under investigation, but the TACDEWG will consider crashworthiness in controlled conditions, which the incident in Taiwan was not.

Ms. Dunham expressed concerns about compromised evacuation due to the size of rear coach seats on aircraft. In response to a question from Mr. Stéphane Flori, ASD, discussion focused on special conditions and paragraph 2(c) in the tasking.

Mr. Sigler asked for a vote to accept the tasking. Mr. Flori stated ASD opposes the tasking as it is currently written, referencing verbiage in paragraph 2(c). Ms. Liu stated the ARAC should avoid opposition to taskings if possible, and recommended working with ASD to amend language in paragraph 2(c) to garner support. Mr. Piccola acknowledged ASD's concern and the respective edits previously received from ASD; Mr. Piccola stated the FAA was agreeable to those edits. Mr. Sigler asked FAA to circulate the tasking electronically to ARAC members once ASD's edits were incorporated. FAA agreed and Mr. Sigler asked ARAC members electronically accept by replying electronically to the FAA.

Mr. Robeson stated Mr. Leach will provide economic support to the TACDEWG.

FAA UPDATE

Ms. Liu announced personnel developments in the management team and welcomed Mr. Jim Crotty, Manager of the Aircraft and Airport Rules Division of ARM, Mr. Brandon Roberts, Manager of the Airmen and Airspace Rules Division of ARM, and Mr. Dale Bouffiou, Manager of the Program and Analysis Staff in ARM. She added long-time FAA employee Ms. Ida Klepper passed away on March 3, 2015.

Ms. Liu stated the FAA is entering the prioritization process for fiscal year 2016.

Ms. Katie Haley, FAA, provided updates to the Committee Manual, which was approved in February 2015. She noted two major developments. First, she explained lobbyists are permitted to participate on committees in a "representative capacity" but are still prohibited from participating on committees if participating in their "individual capacity." Second, Ms. Haley noted U.S. Department of Transportation policy requires waivers for ARAC meetings, including working groups, held outside of Washington, DC. She stated the FAA has obtained a blanket waiver for fiscal 2015 and plans to

renew the waiver each year. She added the FAA now requires FAA personnel obtain Director approval before attending meetings outside of the United States.

Ms. Liu announced the dates of future ARAC meetings: June 18, September 17, and December 17, 2015.

ADJOURNMENT

Mr. Sigler adjourned the meeting at 2:46 p.m.

ACTION ITEMS

Action Item	Responsible Party
Submit the ASHWG response to FAA's request for clarification to the FAA.	ARAC Chair
Submit the MRPWG and EHWG—Engine Bird Ingestion recommendation reports to the FAA.	ARAC Chair
Review the scope of the ACSWG tasking and revisit the extension request.	ACSWG and ARAC
Provide ARAC with white paper on the scope of the ATP ARC's tasking.	FAA
Update the TACDWG tasking notice to address ASD's concerns and coordinate the document electronically with members for ARAC acceptance.	ANM and Renee Pocius

Approved by: _____
Todd Sigler, Chair

Dated: _____

Ratified on: 6/18/15

U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., SW.
Washington, DC 20591

Mr. Dan Elwell
Chair, Aviation Rulemaking
Advisory Committee
Airlines for America
1301 Pennsylvania Ave, NW, Suite 1100
Washington, DC 20004

AUG 11 2014

Dear Mr. Elwell:

The FAA received the Low Airspeed Alerting Phase 2 Task Report from ARAC in March 2013. This report was developed by the Avionics Systems Harmonization Working Group (ASHWG) in response to a 2011 tasking from the FAA, which asked for industry information to support a potential requirement of low airspeed alerting in all airplanes operating under 14 CFR parts 121 and 129. The Phase II Final Report does not contain an assessment of the potential cost and benefits of implementation of such systems, as the ASHWG was awaiting completion of other studies on this subject. Those studies are now complete and their results should be available to the ASHWG soon.

Since receipt of the report, the FAA has internally evaluated several potential options for proposed alerting systems, based on our estimates of their cost and predicted effectiveness at preventing future loss-of-control accidents resulting from unobserved airspeed loss and stall. Per the FAA Office of Rulemaking Committee Manual, Part 3, section 2.4, the FAA may seek additional clarification from an ARAC working group on work related to a completed tasking through the ARAC Chair.

The FAA is requesting ARAC to reconvene the ASHWG to review the FAA's evaluation of the systems and the additional information now available from other concluded studies on this subject. Specifically, we propose to meet with available members of the ASHWG, present the options we have evaluated, and gather additional information as to their suitability for addressing the hazard of unobserved airspeed decay. The ASHWG should provide recommendations based on its review and plan to discuss the recommendations during the September 2014 ARAC meeting. The FAA would like to note that it has not initiated rulemaking on this matter; therefore, this discussion should be considered a continuation of the FAA's previous tasking on this topic.

Sincerely,

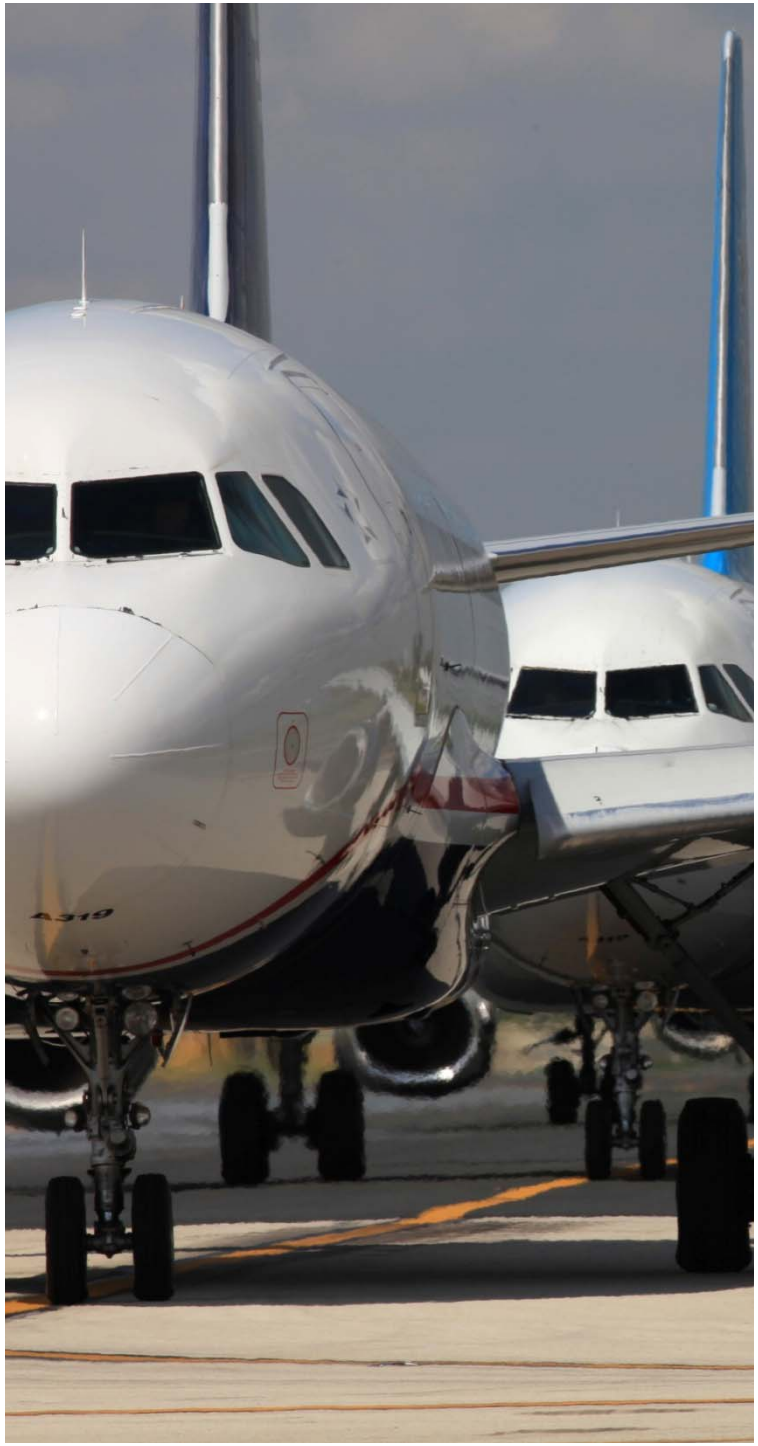
Lirio Liu

Designated Federal Officer

Maintenance Reliability Programs Working Group

Aviation Rulemaking Advisory Committee (ARAC)

Presented to: Aviation Rulemaking Advisory Committee
By: Ron Little, Working Group Chair
Date: March 19, 2015



Background

- June 2013 ARAC meeting the FAA requested and the ARAC accepted the tasking to review and possibly rewrite Advisory Circular (AC) 20-17A.

- The request was based primarily on the following:
  - The National Transportation Safety Board (NTSB) issued safety recommendation A-09-110 identifying contradictory philosophy regarding “on-condition” maintenance and differences between AC120-17A and AC120-16F.
  - AC120-17A refers to MSG-2 methodology which requires updating to include the most current revision methods in MSG-3.
  - Evaluate other guidance material for conflicting material and harmonization

Working Group Members

Name	Company	Industry Group
Ron Little - Chair	DAL	A4A
Ken Mahan	FAA	FAA (AFS 330)
Katherine Haley	FAA	FAA (ARM Analyst)
Amy Oonk	SWA	A4A
Kevin Berger	FedEx	A4A
Mark Coile	UPS	A4A
Bryan Riffe	US Air (non-voting)	A4A
Oliver Weiss	Airbus	AIRBUS
Sarah MacLeod	ARSA	ARSA Aeronautical Repair Station Association
Matthew Razniewski	Boeing	BOEING
John Yakubowsky	Boeing (non-voting)	BOEING
John Sullivan	CAVOK	CAVOK Group - Consulting Group
Melanie Cox	GE Aviation	GE
Dave Mikkelson	Allegiant	NACA National Air Carrier Association
Leonard Beauchemin	Natl Bus Aviat Assoc	NBAA National Business Aviation Association
Russ Raddatz	Air Wisconsin	RAA Regional Airline Association
Manny Gdalevitch	Aeronovo	Aviation Consulting
Matt Hallet	PAI Consulting	Minutes / Report Support

Meetings Summary

• Washington, D. C. (FAA)	Dec. 10 & 11, 2013.
• Phoenix (USAir)	Mar. 5 thru 6, 2014
• Dallas (Southwest)	May 6 thru 8, 2014
• Atlanta (Delta)	June 24 thru 26, 2014
• Cincinnati (GE)	Aug. 19 thru 21, 2014 (add)
• Washington D.C. (NBAA)	Oct. 21 thru Oct 24, 2014
• Washington D.C. (FAA)	Dec. 9 thru Dec. 12, 2014 (add)
• Salt Lake City (FAA)	Jan. 20 thru Jan. 22, 2015 (add)

- In addition, numerous conference calls were scheduled

ARAC Tasking

- **Based on the ARAC tasking the RPWG identified major 4 findings:**
  - Validation of NTSB Safety Recommendation A-09-110;
  - AC 120-17A is outdated and contains serious deficiencies requiring revision;
  - The defined goal of a reliability program in AC120-17A is to maintain inherent reliability that was determined to be anecdotal to operators and requires revision to AC120-17A;
  - Additional FAA documents were found to be in conflict and require harmonization.

Working Group Goals

- The RPWG discussed and approved six (6) goals and related guidelines used during the development of the report, recommendations, and example of a revised AC 120-17A. The RPWG agreed to that an operator's reliability program should:
  1. Define, establish, and maintain an effective maintenance schedule.
  2. Define the standards for determining the time limitations contained within the air carriers maintenance schedule.
  3. Define acceptable levels of reliability performance of the aircraft, powerplant, systems, and components.
  4. Collect data to monitor, analyze, and document reliability performance relative to acceptable levels.
  5. Define appropriate responses to identified unacceptable levels of reliability.
  6. Develop, revise, and approve the methods, processes, and controls for the Reliability Program.

Working Group Deliverables

- The RPWG is submitting to the ARAC three (3) documents as a result of the work the RPWG has completed. In order to fully comprehend the intent of the conclusions reached by the RPWG all three (3) documents must be utilized and cross referenced. The documents are:
  1. Reliability Programs Working Group Recommendation Report
  2. Draft AC-MRPWG guidance (WG Draft AC 120-17A)
  3. Process / Analysis Flow Charts

- The RPWG recommendation report contains 31 specific recommendations for a foundation to a revised AC 120-17A. These recommendations are divided into four (4) major categories:
  1. Scope, structure and philosophy of the guidance material
  2. Recommendations for AC guidance on the definition, data and methods that constitute a reliability program
  3. Roles and responsibilities of an organization with an approved reliability program
  4. Harmonization with other regulatory material

Key Discussion Items

- An effective CASS program is assumed and these recommendations do not address an operator with a deficient CASS program
  - See Working Group assumptions in recommendation report
- An Operator's authority under Operations Specification (OpSpec) D074
  - Recommendation #1
- Clearly define terms
  - Recommendation #4
- Complex processes should be displayed using flow charts
  - Recommendation #5
- Operator defined acceptable performance vs inherent reliability
  - Recommendation #7
- Data sample size related to scheduled maintenance findings
  - Recommendation #14
- Use of different types of analysis methods based on the different types of tasks
  - Recommendation #16
- FEC 8 (Hidden Safety) tasks would normally not have operational data
  - Recommendation #16

Key Discussion Items (cont'd)

- Establishing data requirements and relevance for adjusting time limitations
  - Recommendation #17
- MRBR revisions may or may not be adopted by the operator through an abbreviated analysis that would only review the operator's operational reliability data directly related to the revised tasks. The operator would not be required to follow the complete standards for determining time limits to substantiate the new interval since task interval substantiation has already been completed by the OEM applicable to the global fleet.
  - Recommendation #25

Other Guidance Material

- **The Working Group identified the following guidance material requiring revision for harmonization. This list may not be exhaustive.**
  - AC 00−46, Aviation Safety Reporting Program;
  - AC 00−58, Voluntary Disclosure Reporting Program;
  - AC 120−16, Air Carrier Maintenance Programs;
  - AC 120−59, Air Carrier Internal Evaluation Programs;
  - AC 120−66, Aviation Safety Action Programs;
  - AC 120−72, Maintenance Resource Management Training;
  - AC 120−79, Developing and Implementing an Air Carrier Continuing Analysis and Surveillance System;
  - AC 120−92, Introduction to Safety Management Systems for Air Operators;
  - AC 121−22C, Maintenance Review Boards, Maintenance Type Boards, and OEM/TCH Recommended Maintenance Procedures;
  - FAA Order 8040.4, Safety Risk Management; and
  - FAA Order 8900.1, Flight Standards Information Systems (FSIM).

Aviation Rulemaking Advisory Committee

Airman Certification Work Group Update

- **Work and Developments since last meeting – Phase 3 of the Work Plan**
  - **Update to FAA Airman Testing Website**
    - Draft Private Pilot Airplane Airman Certification Standards
    - FAA Presentation – Introducing the ACS
    - ACS WG – Airman Certification Standards Frequently Asked Questions
    - Sample Exam for Private Pilot-Airplane (PAR)
      - Includes New ACS coding system
    - New Section – What's New and Upcoming in Airman Testing
      - Airman Certification Standards
      - Private Pilot Knowledge Test Changes
        - Questions on the following topic areas have been deleted
          - ADF/NDB
          - Radar Summary Charts
          - En Route Flight Advisory Service (EFAS)
          - Medevac
          - Transcribed Weather Broadcast (TWEB)
          - Obsolete Fuel Grades (80, 100, 115 octane)
        - Following types of questions have also been deleted
          - Questions involving scalability
          - Aircraft performance and weather questions that involve multiple interpolations across multiple charts
  - **Prototyping Effort**
    - Ongoing expanded Private Pilot prototyping – Florida
      - Introduction of Part 61 training and Designated Pilot Examiners
      - Good progress and reaction
      - Surveys created and will be submitted and collected to validate

- ACS Prototype Process
    - Outline, Timeline, Process Flowcharts, Checklists
    - Aid in expanded prototyping
        - Standardize process, expectations, and team members
        - New regions and standards
    - Create two point of contacts
        - Centralized FAA Program Manager
        - Local SME

- **Commercial, ATP, and Handbook Subgroup**
    - Commercial ACS
        - FAA team has completed its validation of draft standard
            - Will communicate any changes with work group
        - Test review and validation to come
            - Question Boarding Process – structured, methodical, and logical way to review existing question bank to match new standards
                - Are the questions relevant and meaningful?
    - FAA Handbook Review and Recommendations
        - Working Group recommendations for the Pilot's Handbook of Aeronautical Knowledge and Airplane Flying Handbook being reviewed
            - Response to recommendations will be communicated back to the WG
        - Currently reviewing –
            - Instrument Flying Handbook
            - Instrument Procedures Handbook
            - Advanced Avionics Handbook
        - Next up –
            - Helicopter Flying Handbook
    - ATP ACS
        - Recommendations submitted to FAA
        - Federal Register posting to follow

- **Instructor Subgroup**
  - Continue to refine and finalize Instructor ACS
    - Different than other standards
      - Define K, S, and RM for instructor but must reference and include underlying standards candidate is teaching
    - Risk Management
      - Differentiation between teaching and managing risk
  - Upon finalization – Federal Register Publication
- **Next F2F Meetings**
  - April 14-15, Washington DC
  - June 23-24, Washington DC

■ **Charter Extension Request**

- Current Charter expires December, 2015
  - Goal is transition from PTS to ACS late 2015, early 2016
- In order to successfully complete that transition, create and finalize all of the components of the Airman Certification System –
  - Requesting a one year extension of the ACS WG charter
    - New expiration date – December, 2016
    - Ensure smooth transition
    - Continue the unprecedented collaboration between the agency and industry to improve the airman certification process and system

Submitted on behalf of the ACS working group

February 25, 2015

By

David Oord

ACSWG Chair

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

Update for ARAC

Federal Aviation Administration

Presented to: ARAC

By: Steve Paasch

Date: March 19, 2015

ASISP WG Task

- **The general task of the ASISP WG is to recommend in a report whether ASISP-related rulemaking, policy, and/or guidance on best practices are needed and, if so, where in the current regulatory framework these would be placed. In doing so, the WG will:**
- **Provide rationale for its recommendations;**
- **Identify**
  - which categories of airplanes and rotorcraft such rulemaking, policy and/or guidance should address, and
  - which airworthiness standards such policy and/or guidance should reference;

Task continued

- **Ascertain whether security-related industry standards from ARINC, FIPS, International Standards Organization (ISO), NIST, SAE ARP 4754a and/or SAE ARP 4761 would be appropriate for use in ASISP-related policy and/or guidance; and**
- **Consider international harmonization needs.**

Schedule

The recommendation report is to be submitted to the FAA for review and acceptance no later than fourteen months from the date of the first working group meeting, date TBD pending WG membership determination.

Progress

The Federal Register Notice FRN was published February 3, 2015 and requests for working group participation are still being received as of February 25, 2015:

- **The FRN specifies March 5th as the deadline to request to become a member;**
- **FAA Directorate representatives and the CSTA for Advanced Avionics are reviewing requests and industry co-chair proposals.**

Next Steps

Dates here are approximate since this notice is still in the membership request phase and the dates rely on whether sufficient membership requests are available by the March 5th FRN application cutoff date:

- **Select co-chairs (March 2015);**
- **Select members (March 2015);**
- **Determine first meeting date and details (March 2015); and**
- **Conduct first meeting (April 2015).**

Contact Information

Steven C. Paasch

Federal Aviation Administration

1601 Lind Ave. S.W., Renton, WA 98057-3356,

Email: steven.c.paasch@faa.gov

Phone: (425) 227-2549,

Fax: (425) 227-1100

TAE Update for ARAC

Mar 19, 2015

Engine Harmonization WG Report
Engine Endurance Testing

Peter Thompson - ARAC Chair

Progress & Agreements To Date

Intensive discussion on intent of current test - team has reached agreement in principle for alternate test

Redline runs required, time at redline to be determined

Variation on current cycle is prime path.

Red Line demonstration methodology will most likely be changed

- Demonstration test based, augmented by analysis and “penalty running” to make up for any deficit in redline running

Alternate Endurance Test ARAC

- **Plans**
- OEMs to work details of feasibility of new test – confirm by end 1Q15 at face to face meeting
- Continue WebEx and face-to-face meetings
  - Expand face-to-face meetings to 3 days
- Involve technical expertise as required
- **Concerns**
- Complexity of rule and technical challenges details drive pace of action item closure
- Aggressive schedule to complete tasks for ARAC report submittal to FAA by December 2015
- Harmonized approach needs to be considered

Team Roster

Name	Organization
Peter Thompson (Chair)	GE Aviation
Neill Forrest (Co Chair)	Rolls-Royce (Derby)
Carlos Oncina	Boeing
Walter Drew	Airbus
Pat O'Connell	Rolls-Royce (Indy)
Greg Mias	Pratt & Whitney
Mark Beauregard	AIAC
Jim Niessink	Honeywell
Dorina Mihail	FAA
Tony Boud	EASA
Pat Markham	HEICO
Dominique Bouvier	Snecma
Yves Cousineau	TCCA

AAWG Update

The last AAWG meeting was held June 10-11, 2014 (UAL Facilities - Chicago, Illinois)

- 35 Attendees
- 4 regulatory authorities
- 5 manufacturers
- 13 operators

Next Meeting: March 11-12, 2015 (Embraer Facilities - Melbourne, FL)

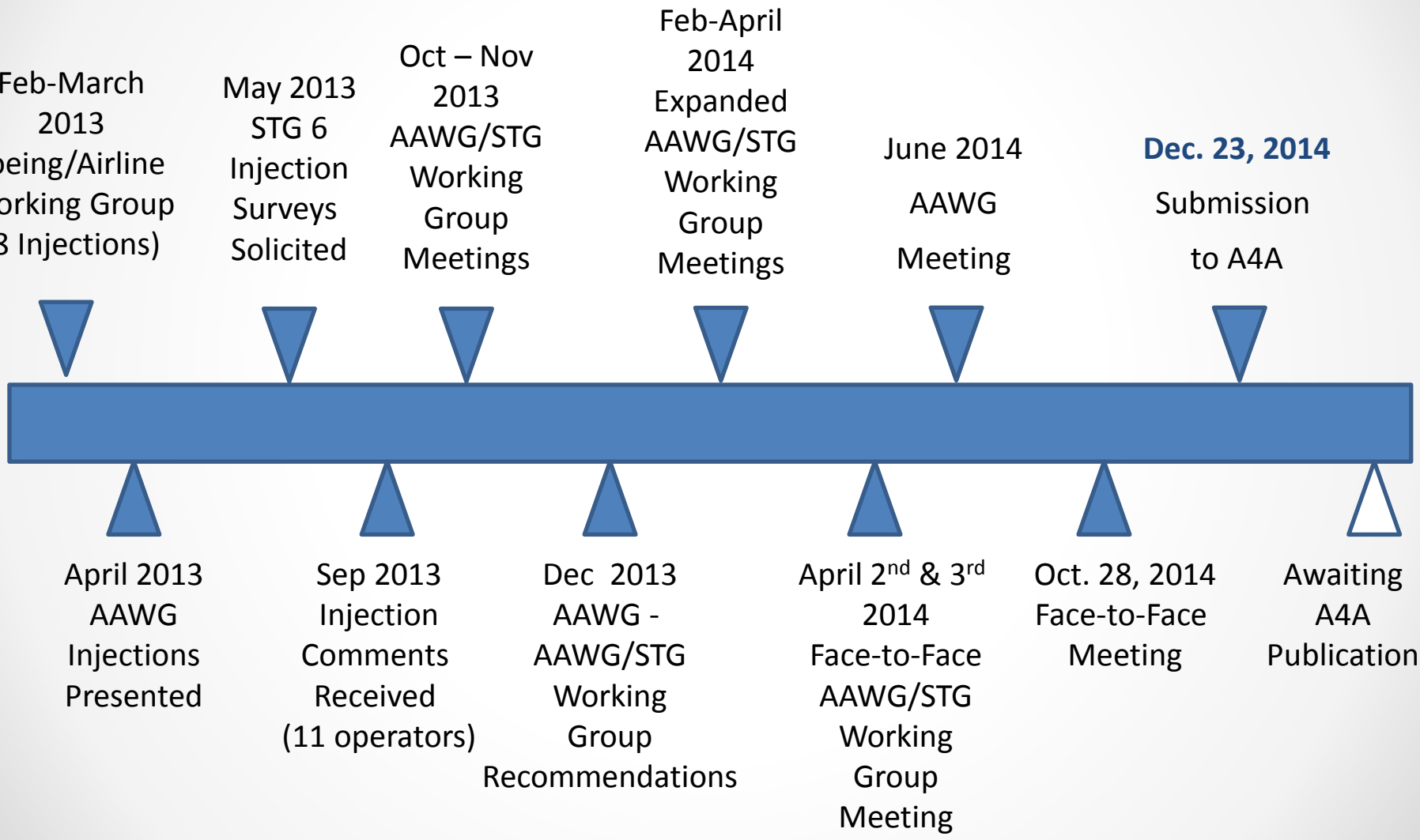
Removable Structural Components

- An AAWG Subteam is developing Industry guidelines that will be submitted to Airlines for America (A4A)
- Their objective was to develop the basis of an ATA document providing common guidance to the industry on identifying and controlling RSCs

Airlines for America (A4A) Document Development:

- Several operators and an MRO shared RSC case studies on how they identify and control RSCs
- A4A presented document format and expectations for draft from the working group
- Decision was made to create a new Air Transport Association (ATA) document
- After discussion of case studies, two subgroups initiated drafting the two main sections of the document

RSC Timeline



Removable Structural Components

- Once the document is approved by A4A, the guidelines will be distributed to OEMs, Operators and MROs.
- Subsequent revisions will be routed through A4A

AAWG Membership

Airbus
- Alain Santgerma
- Marc Bozzolo

Boeing
- Steve Chisholm (Co-Chair)
- Maria Cardwell
- Kevin Donahue
- Sean Harper
- Don Jensen

Bombardier
- Claude Boucher
- Alex Vinitsky

Embraer
- Thomaz Yokoyama
- Luiz Perin
- Carlos Chaves

Lockheed-Martin
- Ralph Sykes

ANAC – Brazil Aviation Safety
- Fabiano Hernandes
- Pedro Caldeira

European Aviation Safety Agency
- Richard Minter

Federal Aviation Administration
- Walt Sippel
- Dale Hawkins
- Michael Gorelik

Transport Canada
- Chuck Lanning
- Hin Tsang

ABX
- Joe Freese

American Airlines
- Phil Yanaconne

All Nippon Airways
- Shinichi Yoshizaki

British Airways
- Phil Ashwell

Delta Air Lines
- Mike Matthews

Deutsche Lufthansa
- Thorsten Koch

FedEx
- Mark Yerger (Co-Chair)
- Steven Rife

Japan Airlines
- Hideaki Morisaki

KLM Royal Dutch Airlines
- Peter Dol

Lynden Air Cargo
- Ethan Bradford

Southwest Airlines
- Vinnie Ploubis

US Airways
- Mike Tallarico
- Lam Nguyen

United Airlines
- Joe Moses

UPS
- Andrew Gallagher
- Bruce Nord

This page contains no technical data subject to EAR or ITAR

Major Topics for March Meeting

- STG Guidelines Approval
- MPIG Request to AAWG for Corrosion Guidelines
- EASA Ageing Structures Status
- LOV Implementation Issues
- Proactive Identification of Aging Issues

Report to ARAC

ARAC-Transport Airplane Performance and Handling Characteristics—Phase 2 Status

Flight Test Harmonization Working Group

Christine Thibaudat – European Co-chair

Robert Park – US Co-chair

Prepared February 25, 2015

FTHWG Status

- Reminder: In early 2014 the FAA assigned the ARAC Flight Test Harmonization Working Group (FTHWG) a new Phase 2 task to provide recommendations regarding new or updated standards in the highest priority topic areas for airplane performance and handling characteristics. Kickoff was June 2-6, 2014 in Cologne.

- Second Phase 2 meeting (FTHWG-32) took place in Seattle October 2-6, 2014. Topics: Continuation of Flight in Icing and Envelope Protection, plus took up Steep Approach Landing.

- Six telecons dealing with several working papers and proposals held since FTHWG-32 to further these four topics.

- FTHWG-33 scheduled for March 9-13 in Toulouse continues work on the Envelope Protection, Stability, and Flight in Icing topics.

- Steady progress is being made.

FTHWG Members/SMEs

Organization	Members/SMEs
FAA	Joe Jacobsen Paul Giesman Bob Stoney
American Airlines	Ernie Tangren
ANAC	Diego Muniz Benedetti Luiz Jether
Transport Canada	John Wiseman
Boeing	Bob Park Brian Lee Dave Leopold Doug Wilson M. Muehlhausen
Airbus	C. Thibaudat L. Capra D. Chatrenet S. Vaux

Organization	Members/SMEs
Embraer	Murilo Ribeiro
Textron	Kurt Laurie
Dassault	Philippe Eichel Jacques Fiton Xavier Doridant
EASA	John Matthews Massimo Barocco
Bombardier	Hany Sadek Tony Spinelli Claude Duchesne
ALPA	Chad Balentine Ron Wilson
Gulfstream	Barry McCarthy Bill Osborne Mike Watson
JCAB	Takahiro Suzuki

FTHWG Meeting Schedule/Venue/Topics 1/2

Meeting	Venue	Topics	Dates
FTHWG-33	Airbus/Toulouse	T1 (Envelope Limiting) T2 (Adaptation for flight in icing) T6 (Lateral / directional / longitudinal stability)	9-10 March 2015 11 March 2015 12-13 March 2015
FTHWG-34	Gulfstream/Savannah	T6 (Lateral / directional / longitudinal stability) T13 (Out of trim characteristics) T7 (Side stick controls)	15-16 June 2015 17 June 2015 18-19 June 2015
FTHWG-35	EASA/Cologne	T9 (Wet runway stopping performance) T10 (Runway excursion hazard classification)	21-23 Sept. 2015 24-25 Sept. 2015
FTHWG-36	Embraer/Melbourne FL	T1 (Envelope limiting) T2 (Flight in icing) T11 (Stall speed in ground effect)	7-8 Dec. 2015 9 Dec. 2015 10-11 Dec. 2015

FTHWG Meeting Schedule/Venue/Topics 2/2

Meeting	Venue	Topics	Dates
FTHWG-37	EASA/Cologne	T16 (HQ Compliance Finding) T9 (Wet runway stopping performance)	7-9 March 2016 10-11 March 2016
FTHWG-38	Bombardier/Montreal	T16 (HQ Compliance Finding) T9 (Wet runway stopping performance)	13-14 June 2016 15-17 June 2016
FTHWG-39	Dassault/TBD	T14 (Tailwind / Crosswind) T11 (Stall speed in ground effect) T15 (PIO/APC)	19-20 Sept. 2016 21 Sept. 2016 22-23 Sept. 2016
FTHWG-40	FAA/TBD	T10 (Runway excursion hazard classification) T16 (HQ Compliance Finding)	5-6 Dec. 2016 7-9 Dec. 2016
FTHWG-41	Airbus/Toulouse	T15 (PIO/APC) T14 (Tailwind / Crosswind)	6-8 March 2017 9 March 2017

Material Flammability WG – New Tasking

- **Tasking Published January 20, 2015**
- **Provide cost and benefit data for the previous ARAC recommendation**
- **Reconstituting previous working group**
- **Three meetings held to date**
- **Task completion due Sept 2015**

Damage Tolerance + Fatigue WG – New Tasking

- **Tasking Published January 26, 2015**
- **New working group being formed**
  - **Requests to participate in Working Group being reviewed**
- **Task completion due Jan 2017**

New Task: Transport Airplane Crashworthiness and Ditching Evaluation Working Group

[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Aviation Rulemaking Advisory Committee; Transport Airplane and Engine Issues - New Task

AGENCY: Federal Aviation Administration (FAA), DOT.

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

SUMMARY: The FAA assigned the Aviation Rulemaking Advisory Committee (ARAC) a new task to 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. The issue is during the development of current airworthiness standards and regulatory guidance, the FAA assumed that airframe structure for transport airplanes would be constructed predominantly of metal, using skin-stringer-frame architecture. Therefore, certain requirements either do not address all of the issues associated with nonmetallic materials, or have criteria that are based on experience with traditionally-configured large metallic airplanes. With respect to crashworthiness, there is no airframe-level standard for crashworthiness. Many of the factors that influence airframe performance under crash conditions on terrain also influence airframe performance under ditching conditions. Past studies and investigations have included recommendations for review of certain regulatory requirements and guidance material to identify opportunities for improving

survivability during a ditching event; consideration of these recommendations is included in this tasking.

This notice informs the public of the new ARAC activity and solicits membership for the Transport Airplane Crashworthiness and Ditching Working Group.

FOR FURTHER INFORMATION CONTACT: Ian Won, Federal Aviation Administration, 1601 Lind Avenue SW, Renton, WA 98055, ian.y.won@faa.gov, phone number 425-227-2145, facsimile number 425-227-1232.

SUPPLEMENTARY INFORMATION:

ARAC Acceptance of Task

As a result of the [date of the ARAC meeting] ARAC meeting, the FAA has assigned and ARAC has accepted this task and will establish the Transport Airplane Crashworthiness and Ditching Working Group, Transport Airplane and Engine Issues. The working group will serve as staff to the ARAC and provide advice and recommendations on the assigned task. The ARAC will review and approve the recommendation report and will submit it to the FAA.

Background

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.

The Transport Airplane Crashworthiness and Ditching Working Group will provide advice and recommendations to the ARAC on airframe-level crashworthiness and ditching standards to incorporate into part 25 and any associated advisory material.

The requirements of Title 14, Code of Federal Regulations (14 CFR) 25.561 apply equally to structure constructed from either metallic or nonmetallic materials, and regardless of

the design architecture and airplane size. Guidance material is mainly contained in FAA Advisory Circular (AC) 25-17A. While not explicitly stated in part 25, during the development of current airworthiness standards and published advisory circulars, the FAA assumed that airplane airframes would be constructed predominantly of metal, using skin-stringer-frame architecture. Therefore, some of the requirements either do not address all of the issues associated with nonmetallic materials, or have criteria that are based on experience with traditionally-configured large metallic airplanes. With respect to crashworthiness, there is no airframe-level standard for crashworthiness. The FAA promulgated standards for occupant protection at the seat installation level, with the presumption that the airframe provides an acceptable level of crashworthiness. Thus when an applicant proposes to use unconventional fuselage structure (materials, design, or both), the FAA has written special conditions to ensure the level of crash protection is equivalent to that provided by a traditionally-configured metallic airplane. These special conditions have been comparative in nature, and do not establish performance standards that are independent of traditional metallic skin-stringer-frame architecture for airframe crashworthiness.

Crashworthiness Factors: Many factors influence the crashworthiness of an airframe, including materials of construction, geometry, structural philosophy, and fuselage size (fuselage diameter). The key elements of crashworthy airframe design are managing energy absorption and maintaining structural integrity. For the most part, energy absorption is managed through plastic deformation and controlled failures of the lower fuselage structure. Maintaining the integrity of the structure is a balance between keeping loads within human tolerance levels, retaining items of mass, preserving a survivable volume and maintaining access to exits. Existing airworthiness requirements mainly focus on the safety of flight, and not crashworthiness, consequently when

deviating from the traditional methods of construction an adequate level of safety cannot be assured.

Increased Use of Composites: In June 2009, the FAA Transport Airplane Directorate requested comments through the Federal Register (74 FR 26919) on whether there was a need for future rulemaking to address manufacturers' extensive use of composite materials in airplane construction. Several candidate technical areas were noted in the request, including fire safety, crashworthiness, lightning protection, fuel tank safety and damage tolerance. All responses that the FAA received indicated that crashworthiness in particular needs improved guidance and possible rulemaking.

Ditching: The FAA conducted several investigations on ditching and water-related impacts in the 1980s and 1990s. In conjunction with Transport Canada and the United Kingdom Civil Aviation Authority (UK CAA), the FAA recently investigated ditching/water-related impacts and ditching certification. One of the findings of these investigations is that current practices may not provide an adequate level of safety for the most likely ditching scenarios. From this research, a ditching event can be categorized as a specific type of emergency landing. Many of the factors (e.g., airframe energy absorption characteristics, structural deformation, etc.) that influence airframe performance under crash conditions on terrain also influence airframe performance under ditching conditions. Flight crew procedures, airplane configuration, safety equipment, and passenger preparedness also have a significant influence on survivability during a ditching event. Findings from these investigations include recommendations for review of certain regulatory requirements and guidance material related to the aforementioned factors to identify opportunities for improving survivability during a ditching event.

The Task

The Transport Airplane Crashworthiness and Ditching Working Group is tasked to:

1. Specifically advise and make written recommendations on what airframe-level crashworthiness and ditching standards to incorporate into 14 CFR part 25 and any associated advisory material.
2. Evaluate §§ 25.561, 25.562, 25.563, 25.785, 25.787, 25.789, 25.801, 25.807, 25.1411, 25.1415, and associated regulatory guidance material (e.g., ACs and policy memorandums) to determine what aspects need to be revised to maintain the current level of safety. Evaluate Special Conditions Nos. 25-321-SC, 25-362-SC, 25-528-SC, 25-537-SC, as a basis for future requirements. The Transport Airplane Crashworthiness and Ditching Working Group will specifically review the following factors in making its recommendations:
    a. Fuselage size effects as discussed in FAA report DOT/FAA/CT-TN90/23;
    b. Safety benefit considerations as identified in CAA Paper 96011 (and any subsequent revisions);
    c. Other configurations such as multiple decks or non-traditional airplane level configurations or structural configurations (e.g., non-skin, stringer, frame construction).
3. Make recommendations, using the information in FAA reports *DOT/FAA/TC-14/8 (draft)*, DOT/FAA/AR-95/54, DOT/FAA/CT-92/04, DOT/FAA/CT-84/3, FAA policy memorandum PS-ANM100-1982-00124, and any other pertinent information that may be available on:
    a. Assumptions used in establishing the airplane configuration for ditching, both planned and unplanned;

b. Validation of assumptions used for establishing airplane flight performance for planned and unplanned ditching scenarios;
c. Procedures to be used to execute a successful ditching;
d. Minimum equipment needed to address the likely ditching scenarios.

4. Consider the performance of existing-conventional metallic airframe structure in crash conditions (with consideration to size effects) when developing recommendations for airframe-level crashworthiness and ditching standards, such that conventionally configured airplanes fabricated with typical metallic materials and design details can be shown to meet the proposed regulations without extensive investigation or documentation.
5. Based on the Transport Airplane Crashworthiness and Ditching Working Group recommendations, perform the following:
    a. Estimate what regulated parties will do differently as a result of the proposed regulation and how much it would cost;
    b. Estimate the improvement (if any) in survivability of future accidents from this proposed regulation (cite evidence in the historical record as support if possible);
    c. Estimate any other benefits (e.g., reduced administrative burden) or costs that would result from implementation of the recommendations.
6. Develop a report containing recommendations on whether to incorporate airframe-level crashworthiness and ditching standards into 14 CFR part 25, the recommended requirements, and any associated advisory material.
7. Develop a report containing recommendations on the findings and results of the tasks explained above.

a. The 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 reason for the disagreement.

8. Consider EASA requirements, accepted means of compliance (AMC) and guidance material (GM) for harmonization to the extent possible.

9. The Transport Airplane Crashworthiness and Ditching Working Group may be reinstated to assist the ARAC by responding to the FAA's questions or concerns after the recommendation report has been submitted.

Schedule

The recommendation report must be submitted to the FAA for review and acceptance no later than 24 months after publication of this notice.

Working Group Activity

The Transport Airplane Crashworthiness and Ditching Working Group must comply with the procedures adopted by the ARAC. As part of the procedures, the working group must:

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 ARAC on Transport Airplane and Engine Issues.

3. Provide a status report at each ARAC meeting on Transport Airplane and Engine Issues.

4. Draft and submit the recommendation report based on the review and analysis of the assigned tasks.

5. Present the recommendation report at the ARAC meeting on Transport Airplane and Engine Issues.

Participation in the Working Group

The Transport Airplane Crashworthiness and Ditching Working Group will be comprised of technical experts having an interest in the assigned task. A working group member need not be a member representative of the ARAC. The FAA would like a wide range of members to ensure all aspects of the tasks are considered in development of the recommendations. The provisions of the August 13, 2014 Office of Management and Budget guidance, "Revised Guidance on Appointment of Lobbyists to Federal Advisory Committees, Boards, and Commissions" (79 FR 47482), continues the ban on registered lobbyists participating on Agency Boards and Commissions if participating in their "individual capacity." The revised guidance now allows registered lobbyists to participate on Agency Boards and Commissions in a "representative capacity" 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.)

If you wish to become a member of the Transport Airplane Crashworthiness and Ditching Working Group, write the person listed under the caption FOR FURTHER INFORMATION CONTACT expressing that desire. Describe your interest in the task and state the expertise you would bring to the working group. The FAA must receive all requests by **[insert date 30 days after publication of this notice]**. The ARAC and the FAA will review the requests and advise you whether or not your request is approved.

If you are chosen for membership on the working group, you must actively participate in the working group by attending all meetings, and providing written comments when requested to do so. You must devote the resources necessary to support the working group in meeting any assigned deadlines. You must keep your management chain 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, the FAA, including the Designated Federal Officer, and the Working Group Chair.

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.

ARAC meetings are open to the public. However, meetings of the Transport Airplane Crashworthiness and Ditching Working Group 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.

Issued in Washington, DC, on

Lirio Liu
Designated Federal Officer
Aviation Rulemaking Advisory Committee

Subject:	INFORMATION: Interpretation of FAR 25.801 (d), Ditching Approvals of transport Airplanes	Date:	DEC 10 1982
From:	Leroy A. Keith Manager, Aircraft Certification Division, ANM-100	Reply to Attn. of:	ANM-112: 8040-1 25.801 (d)
To:	Managers ACE-100, ASW-100, ANE-100, AWS-100		

Question has arisen regarding interpretation of certain aspects of the ditching requirements of FAR 25.801 (d). In particular, what constitutes the "reasonably probable water conditions" mentioned therein, and what is the maximum permissible time interval for occupants to enter liferafts.

In addition, confirmation was requested that ditching approvals of all size transport airplanes include an evaluation of the provisions of installing the emergency equipment specified in FAR 25.1411.

The expression "reasonably probable water conditions" is considered judgemental in application to compliance for ditching and has never been specifically defined as to sea state force or wave height. Early ditching investigations of dynamic models were conducted by the National Advisory Committee for Aeronautics (NACA) at Langley Field, Virginia, and NACA Report 1347, issued in 1958 and reflecting a compilation of such test results, set the precedence for early and modern transport airplane designers in substantiating airplanes for ditching by analyses. Such early tests were based on calm-water landings with the supposition that rough-water landings of particular models that were made parallel to waves or swells would exhibit the same general type of performance. Later rough-water ditching investigations of models were conducted and their results were compiled in documents such as Technical Note No. D-101, issued by the National Aeronautics and Space Administration (NASA) in 1959, and also referred to by designers in respective ditching analyses.

In addition to reference to actual ditching incidents, it became an acceptable practice for designers to substantiate the ditching behavior of a proposed airplane design by comparisons in basic geometric configuration to airplane designs approved for ditching and/or the models tested at Langley Field. Parametric comparisons usually revealed some identicalness in geometric aspects and where obvious discrepancies in dimensional relationships were evident, predetermined correction factors were applied.

A maximum permissible evacuation time for liferafts per the rule is also considered judgemental in scope for ditching compliance. During certification, it is usually shown by analysis that an airplane will float for a period of time exceeding the most conservative estimate of time required to completely evacuate the airplane. Evacuation times and rates for liferaft type devices are normally established by analysis and included in the particular airplane model ditching and flotation document presented for approval during type certification. An acceptable evacuation rate for slide/rafts deployed from representative sill heights has been considered to be 60 persons per minute per lane for a duration of 70 seconds.

Prior to approval of any size or type of transport airplane for ditching approval under FAR 25.801, there must be evidence of an engineering evaluation of the provisions for installing the emergency equipment specified in FAR 25.1411.

Attachment 8*
CAA Paper 96011: Analysis of Structural Factors Influencing the Survivability of Occupants in Aeroplane Accidents

Attachment 9*
Review and Assessment of Transport Category Aeroplane Ditching Standards and Requirements Issue 2

Attachment 10*
DOT/FAA/AR-95/54 Transport Water Impact and Ditching Performance

Attachment 11*
AD-A142 092 Study on Transport Airplane Unplanned Water Contact

Attachment 12*
AD-A285 691 Commuter/Air Taxi Ditchings and Water-related Impacts that Occurred from 1979 and 1989

Attachment 13*
Seat Dynamic Performance Standards for a Range of Sizes

*Available upon request