

**AVIATION RULEMAKING ADVISORY COMMITTEE
RECORD OF MEETING**

MEETING DATE: June 21, 2018

MEETING TIME: 2:00 PM

LOCATION: Mayflower Hotel
1127 Connecticut Ave, NW
Washington, DC 20036

**PUBLIC
ANNOUNCEMENT:** The Federal Aviation Administration provided notice to the public of this Aviation Rulemaking Advisory Committee meeting in a *Federal Register* notice published on March 17, 2018 (83 FR 23036).

ATTENDEES: **Committee Members and Alternates**

Yvette A. Rose	Cargo Airline Association (CAA) <i>ARAC Chair</i>
Lirio Liu	Federal Aviation Administration (FAA) Office of Rulemaking <i>Designated Federal Officer (DFO)</i>
Sarah MacLeod	Aeronautical Repair Station Association (ARSA)
Pascal Joly	AeroSpace and Defense Industries Association of Europe (ASD)
Chad Balentine*	Air Line Pilots Association (ALPA)
Ric Peri	Aircraft Electronics Association (AEA)
Michelle Betcher	Airline Dispatchers Federation (ADF)
Paul McGraw	Airlines for America (A4A)
Melissa Sabatine	Airports Council International, N.A.
Dinkar Mokadam	Association of Flight Attendants (AFA)
Keith Morgan	Pratt & Whitney

Andrew Applebaum	FlyersRights.org
Jens Hennig	General Aviation Manufacturers Association (GAMA)
Chris Martino	Helicopters Association International (HAI)
David Supplee*	International Association of Machinists and Aerospace Workers (IAMAW)
George Paul	National Air Carrier Association (NACA)
Gail Dunham*	National Air Disaster Foundation (NADF)
Phillip Poynor	National Association of Flight Instructors (NAFI)
Doug Carr	National Business Aviation Association, Inc. (NBAA)
Ambrose Clay	National Organization to Insure a Sound Controlled Environment (NOISE)
Jennifer Sunderman	Regional Airline Association (RAA)

Attendees

Brian Chewning*	L3T
Brian Keoster	NBAA
Brian Lee*	The Boeing Company (Boeing) Flight Test Harmonization Working Group Chair
Daniel Friedenzohn	Embry-Riddle Aeronautical University
Dave Bell*	PLA
Doug Gardiner*	Cableone
Dennis Shanahan*	Injury Analysis, LLC Rotorcraft Occupant Protection Working Group Chair
Erik Kaupa*	PLA
Jackie Spanitz *	ASI
Jonathan Pelham	American Association of Airport Executives (AAAE)
Julie Brightwell	Boeing

Kelly Sandusky	Department of Defense (DoD)
Kevin Davis*	Boeing
Sandra Lamparello*	PAI
Steve Hondel	(DoD)
Lawrence Fine*	Atlas Air
Leslie Riegle	AIA
Mark Phaneuf	ALPA
Martin McKinney*	United Parcel Service (UPS)
Maryanne DeMarco	Coalition of Airline Pilots Association
Michael Smith*	Bell Helicopters
Natalie Room	Boeing
Ray Callahan*	DOD/FAA
Alan Strom*	FAA
Brent Hart*	FAA
Mary Schooley*	FAA
Clarence Kanae*	FAA
Dale Bouffiou*	FAA
Dave Gillespie*	FAA
Dennis Petri*	FAA
George Padalec*	FAA
Giles Strickler	FAA
Jim Crotty*	FAA
Julia Greenway*	FAA
Lakisha Pearson	FAA
Patricia Williams*	FAA

Ray Callahan*	FAA
Rick Breitenfeldt	FAA
Ross Rutledge*	FAA
Sara Mikolop	FAA
Stephen Grotta	FAA
Steven Fox*	FAA
Susan Parsons*	FAA
Thuy Cooper	FAA
Victor Wicklund	FAA
Walter Sippel*	FAA
Amy Lubrano	The Regulatory Group/FAA

*Attended via teleconference.

Welcome and Introduction

Ms. Yvette Rose, ARAC Chair, called the meeting to order at 2:00 p.m. Ms. Rose invited those individuals who attended in-person to introduce themselves and took a roll call of those individuals who attended via teleconference.

Ms. Lirio Liu, Designated Federal Official (DFO), read the required Federal Advisory Committee Act (FACA), Title 5, United States Code (5 U.S.C.); Appendix 2 (2007) statement. Ms. Liu confirmed that it is a public meeting and that members of the public may address the ARAC with the permission of the Chair.

Ratification of Minutes

Ms. Rose asked if there was a motion to approve the minutes from the ARAC's meeting on March 15, 2018. Ms. Sarah MacLeod moved to approve the minutes and Ms. Melissa Sabatine seconded the motion. The ARAC voted to ratify the minutes from the March 15, 2018 meeting.

Status Reports

Rotorcraft Occupant Protection Working Group (ROPWG)

Dr. Dennis F. Shanahan, ROPWG Chair, provided a status report ([ROPWG Status Report Task 6 20180621.pdf](#)) that included an overview of membership, a summary of tasking,

an overview of the ROPWG's schedule, the status of the ROPWG's work on Task 6, and areas for ARAC consideration. Dr. Shanahan noted that the status report has changed somewhat as a result of the ROPWG's meeting the previous week. Dr. Shanahan noted the ROPWG is scheduled to submit its recommendation report to the ARAC on August 5th, in time for the September ARAC meeting.

With respect to Task 6, Dr. Shanahan noted that intervention strategies (IS's) have been developed and scored based on a modification of the FAA Office of Accident Investigation and Prevention developed CAST System. Dr. Shanahan stated that IS's were developed via proposals from members, and that the number of IS's will be pared down, categorized, and prioritized within each of the following seven intervention categories, which Dr. Shanahan provided an overview of:

1. Near-Term Implementation of Current Occupant Protection Regulations to the Existing Rotorcraft Fleet.
2. Educational/Incentive Programs (Government and Private Sector).
3. Industry Standards.
4. Personal Protective Equipment Use for Certain Missions.
5. Changes to Enhance/Improve Occupant Protection Regulations
6. Research to Improve the Crash Safety of Rotorcraft (FAA, NASA, Private Sector)
7. Public Use Rotorcraft.

Dr. Shanahan stated that since the last ARAC meeting, the ROPWG has acquired and analyzed the cost data for implementing regulatory changes and has begun the cost-benefit analysis. Dr. Shanahan stated that the ROPWG is currently compiling all the recommendations it will be putting forth and is on track for report completion by August 5th.

Ms. Rose asked if the ROPWG foresees any dissents, or if the members feel good about their recommendations. Dr. Shanahan responded that they feel good about the recommendations. He noted that although the working group went outside the requirements of Task 6, they felt it was appropriate. He said the group as a whole is feeling good about what they finally agreed upon. Ms. Rose noted the ARAC will consider the ROPWG's recommendation report at the September meeting, and she asked whether someone from the working group will come in person to present the report. Dr. Shanahan said he plans to attend the meeting in person.

Airman Certification Systems Working Group (ACSWG) Status Report and Interim Report

Ms. Jackie Spanitz, ACSWG member and subgroup lead, provided a status report ([2018-06-01 ARAC ACSWG Status Report.pdf](#)) for the ACSWG, including an overview of membership, a summary of tasking, an overview of the ACSWG's schedule, the status of tasking, a summary of the Airman Certification Standards, and areas of ARAC consideration. *See* attached ACSWG Status Report Presentation.

Ms. Spanitz stated that the ACSWG is on track with all of its tasking to date, and that the ACSWG expects to have its work completed by December 2019, with final recommendations by the June 12, 2020 deadline. Ms. Spanitz noted that the ACSWG has been very productive and has been able to maintain four different subgroups. She noted that the ACSWG is awaiting approval for the onboarding of new members specific to the different aircraft categories. Ms. Spanitz also noted the ACSWG is looking for subject matter experts (SMEs) for Glider, Balloon, Sport, Rotorcraft, and Powered Lift, and that those are pending approval.

Interim Recommendation Report

Ms. Spanitz provided a brief summary of the ACSWG's May 21, 2018 Interim Recommendation Report ([2018-05-21 ACS WG Interim Recommendation Report FINAL.pdf](#)), which includes the ATP, Military Competence, and Instructor Airman Certification Standards.

Mr. George Paul asked about the SMEs that need approval, and whether the ACSWG's work will be held up if the SME's are not approved by a certain time. He also asked who gives those approvals. Ms. Susan Parson, FAA, said the DOT is asking to approve new working group members, and the ACSWG has provided its list of recommended new members to the Secretary. She noted the working group has quite a bit of existing expertise for rotorcraft, and that although it does not have a lot of expertise for gliders and other areas, it does not have the bandwidth to take those on yet, so they are doing fine with the members they have. Ms. Spanitz said that waiting for approvals is not holding up the ACSWG's work because helicopters will be spring-boarded from private aircraft, so there is a lot of work that can be done in preparation for when the SMEs and working group members are approved. She noted the ACS is a transition from practical test standards, and since they already have private pilot airplane ACS, the ACSWG can prepare a document for when the new members come on board.

Ms. Lirio Liu, speaking as DFO, clarified that updates and changes to working groups, subcommittees, and anyone new to the ARAC will have to be approved by the Secretary of Transportation, but SMEs on the FAA side do not have to be approved by the Secretary. Ms. Liu noted there was new ARAC tasking put forth and accepted, and that appointment memos for ARAC and TAE Subcommittee members already approved in past meetings have been transferred to the Office of the Secretary, and it is about a 90-day process. Ms. Liu also stated that FAA has coordinated appointment packages for the following working groups: ACS, Avionics Systems Harmonization, Ice Crystals Icing, and Part 145. Ms. Liu stated that this is a new process that has been established and FAA has been continuing to work through things as needed. Ms. Liu clarified that working groups cannot meet until the Secretary has approved its members.

With respect to the ACSWG Interim Recommendation Report, Mr. Ric Peri noted the recommendation is to align AMT training regulations and guidance to the ACS. Mr. Peri further noted there is an active rulemaking on part 147 right now. He expressed his view that based on the presentation made today, they are in *ex parte*, so the ACSWG's

recommendation is not a viable option until part 147 is resolved. Ms. MacLeod asked Mr. Peri whether the recommendation is actually an alignment with the knowledge requirements of part 65. Mr. Peri said the bottom line is that as long as there is an active rulemaking on that regulation, he finds it difficult to consider a recommendation to change it. Ms. MacLeod again stated it is an alignment with the knowledge requirements from 65, no matter what part 147 says. Mr. Peri noted that the knowledge requirements come from the appendices in part 147.

Ms. Spanitz stated that the ACSWG is watching the part 147 development very closely to make sure that everything is consistent. She said Mr. Peri is right that it is independent, that the ACS is the testing standards and part 147 are the training standards for maintenance schools only, while part 65 is for airmen, so it is an unusual circumstance relative to the operations side. She noted that regardless of what happens with part 147, they will want to make sure that the ACS is consistent so no unnecessary burden is put on schools to be in compliance with two different training standards. Ms. Spanitz noted that the ACS is currently aligned with the part 147 NPRM, and if that evolves they will make sure the ACS is in alignment. Mr. Peri pointed out there is now an SNPRM for part 147. He again stated that this is an active rulemaking and the ARAC has no business touching it. Ms. MacLeod noted that there is a current rule and that the theory behind the alignment recommendation is to the current rule. She also stated her belief that, with respect to the whole ARAC process, there would be ongoing communications as rules adjust and the ARAC could go back and look at standards to make sure they are current to both the regulation and the expectations of industry. Ms. MacLeod also expressed her belief that, since it has been 4 years since the NPRM was released, FAA is not in a big rush on part 147, so everyone will still have to live with the current rule for another 4 or 5 years.

Mr. Jens Hennig noted that the ARAC approved the tasking on the AMT update a year or two ago, so this is something the ARAC has endorsed. He also stated that if you look at the overall ACS, it is a process, and this is a group that continuously is there to help FAA and industry to work together. He noted the ARAC has not stopped working on pilot certification just because there might be an update to that rule in the queue. He said this forum is such that, when there are rule changes, or requirements changes, or safety issues, they can be loaded into the process for the next round. He said they have a process that helps facilitate that by having the ACSWG in the ARAC.

Mr. Peri stated that he understands the part 147 element of part 65 certification, but what concerns him is that this is not a “what-if?” kind of environment. At the FAA/EASA Safety Conference technical panels¹, the Agency briefed that they could not talk about this issue because of *ex parte*. He said he is therefore concerned that they are treading in an area that is a bit challenging. He further stated that if they are saying part 65 is independent from part 147, then he has a real problem with it because they are being prescriptive, but part 65 is broad-based with only an experience requirement, and there

¹ The FAA/EASA Safety Conference was held June 18-21, 2018 in Washington, DC.

are no specific qualifications. He noted that, because the report actually specifies specific elements, it is not consistent with part 65, it is aligned with part 147.

Ms. Rose said this would not be *ex parte* because it is public. She noted that while FAA cannot speak to a rule because it is an active rulemaking, it is not *ex parte* if a group submits public comments, and this report would be something to that effect. Ms. Sara Miklop, FAA AGC, noted that a lot of FAA's work is long term, and although the Agency is not going to engage on the specifics of the part 147 rulemaking, that does not mean that all conversation on part 147 is shut down. With respect to the part 147 SNPRM, it was clarified that the Agency is working on it but it has not yet been published.

Ms. Rose asked for a motion to accept the ACSWG's Interim Recommendation Report. Ms. MacLeod noted it is only an interim report, and Ms. Rose agreed but noted that for transparency and to ensure that every member understands, they need to take a vote to accept the report. Mr. Hennig moved to accept the report. Mr. Paul seconded the motion. The ARAC voted to accept the Interim Recommendation Report. Mr. Ric Peri abstained from the vote.

Transport Aircraft and Engine Subcommittee (TAE Subcommittee)

Mr. Keith Morgan, TAE Chair, noted the ARAC would be hearing updates today from three of the TAE Subcommittee's working groups ([ARAC Transport Aircraft and Engines Working Group Status Report_06212018 \(6-1-18\).pdf](#)) and a final recommendation report from one of those working groups. Mr. Morgan provided a status update for the TAE that included an overview of membership and an overview of the TAE's schedule.

Flight Test Harmonization Working Group (FTHWG)

Mr. Brian Lee, FTHWG Co-chair, provided a status report that included an overview of membership, a summary of tasking, an overview of the FTHWG's schedule for Phase 3, the status of tasking, and areas of ARAC consideration.

Mr. Lee stated that the FTHWG has completed Phase 2, with the exception of the Wet Runway Stopping Performance topic. Mr. Lee noted the FTHWG will be presenting its Wet Runway Stopping Performance Recommendation Report to the ARAC at today's meeting.

Mr. Lee stated the FTHWG is now in Phase 3 of its tasking. He noted that the FTHWG considers the Phase 3 schedule to be aggressive, but they are on track and on schedule. He noted they are doing Go-Around Performance (Topic 18) in two steps, and they expect to be finished with that topic by November 1st. Mr. Lee also noted that the FTHWG submitted its recommendation report for the OEI directional control on slippery surfaces (Topic 30) to the TAEWG this week, and it will be considered at the TAEWG's July 25th meeting and ready for ARAC consideration at its September meeting.

Mr. Lee noted that at the last ARAC meeting, the FTHWG raised concerns about inconsistent participation from EASA. He reported that EASA attended and participated in FTHWG's meeting last week. Mr. Morgan noted that the issue of EASA's inconsistent participation in the FTHWG was raised with the EASA representative at the TAE's meeting in May, and the EASA representative said he would talk to his team about it.

Metallic and Composite Structures Working Group

Mr. Morgan presented the Metallic and Composite Structures Working Group's status report on behalf of its Chair, Mike Gruber. Mr. Morgan noted that the Working Group has completed its tasking and submitted its recommendation report, which the TAE will consider at its July meeting. He further noted that if the TAE approves the recommendation report, it will submit the report to the ARAC for consideration at its September meeting. Mr. Morgan pointed the ARAC to the Recommendation Summary included in the Working Group's presentation. Mr. Morgan noted that the Working Group did not have any major dissents, so they are in good shape on the report and recommendation.

Transport Aircraft Crashworthiness and Ditching Evaluation Working Group (TACDWG)

Mr. Morgan noted that the TAE received the TACDWG's recommendation report but returned it to the working group at the TAE's May meeting due to concerns about dissents. Mr. Morgan further noted that the TACDWG has since worked through the report, with the recommendation to bring it back to the TAE for consideration at its July meeting.

Mr. Kevin Davis, TACDWG Chair, provided a status report that included an overview of membership, a summary of tasking, an overview of the TACDWG's schedule, the status of tasking, and a summary of the TACDWG's Recommendation Report. Mr. Davis noted that the TACDWG finished its recommendation report last December, but added clarifying language in the Executive Summary based on comments from the TAE. The TACDWG resubmitted the report to TAE in May.

Mr. Davis provided an overview of the following recommendations in the TACDWG's recommendation report:

- Proposed new airframe level crashworthiness rule and associated guidance.
 - Ability to use similarity to previous acceptable designs as MoC option.
- Proposed revised ditching rules; sections §§ 25.563, 25.801 and associated guidance.
- Proposed harmonization with some reorganization of emergency equipment and evacuation rules; §§ 25.785, 25.801, 25.809, 25.810, 25.811, 25.812, 25.1411, 25.1415.

- Includes additional guidance for § 25.801 for unplanned ditching incorporating means of compliance issue papers for flotation and evacuation.

As to the dissents in the recommendation report, Mr. Davis clarified that from the Original Equipment Manufacturer's (OEM) perspective, it was not really a dissent so much as it was a comment or concern they wanted documented in the report. He noted that the OEM's felt that sufficient information was not available at this time to write a fully robust rule. He said the primary concern was with doing a showing of compliance for crashworthiness for a lot of products where there have been many years of successful and what the FAA would call safe service. Mr. Davis noted the working group they came to a general agreement to use a means of similarity and not have to do a huge effort, as was done on 787 and 8350 for every product. Mr. Davis noted that was what ended up in the recommendation, which led to the dissents from AFA (Association of Flight Attendants) and DLR (German Aerospace Center), because they were concerned regarding the use of similarities of previous products. He noted that this is the major dissent (i.e., the use of similarities), with a minor dissent from NASA regarding the impact velocity. Mr. Davis said he does not see that dissent as being very significant.

Mr. Dinkar Mokadam raised an issue he first raised at the March ARAC meeting, which is that Candace Kolander is no longer with the Association of Flight Attendants (AFA) and the Association therefore needs to replace her as a voting member on the TACDWG with either Mr. Mokadam or Mr. Chris Witkowski. Mr. Mokadam noted that he made this request at the March ARAC meeting, but he does not know the status of the request. He noted that AFA has not been a party to any TACDWG conversations since March, including related to revisions to the Executive Summary of the Recommendation Report, which needs to be rectified. Ms. Rose asked Mr. Mokadam if AFA had submitted a name to be the new working group member, and Mr. Mokadam said he submitted himself or Mr. Witkowski, which would be reflected in the minutes from the March ARAC meeting. Ms. Liu stated that because they are already a member of the ARAC, they can sit in the working group without having to go through the approval process. Mr. Mokadam noted that this was not made clear at March ARAC meeting, and that no one had reached out to AFA about this. Ms. Liu noted that the guidance has been changing, then confirmed that anyone who is an active member of the ARAC can participate in activities and working groups at any time. Mr. Mokadam noted he was told during the March ARAC meeting that it would have to go to DOT for approval. Ms. Liu reiterated that either Mr. Mokadam or Mr. Witkowski can participate in the TACDWG meetings because they are ARAC members. Mr. Mokadam stated that he will be AFA's member on the TACDWG. Mr. Morgan said he will make sure that Mr. Mokadam is contacted by the TACDWG.

Recommendation Reports

Loadmaster Certification Working Group (LCWG) Recommendation Report

Mr. Mark Phaneuf, LCWG Chair, briefed the ARAC on the LCWG's Recommendation Report ([LCWG Recommendation Report May 18 2018 - FINAL1.pdf](#)). He noted that the

report is a culmination of 22 months of work. Mr. Phaneuf thanked Ms. Liu and Ms. Rose for their guidance to the Chair and Co-Chair on the process. In addition to summarizing the LCWG's recommendations, Mr. Phaneuf provided an overview of the LCWG's membership, tasking, and schedule ([Loadmaster Certification Working Group Recommendation - FINAL.pdf](#)).

Mr. Phaneuf summarized the following recommendations from the LCWG's report:

- By general consensus, the LCWG recommends the FAA require air carriers conducting special cargo operations under 14 CFR part 121 to have an FAA-Approved Special Cargo Program.

Mr. Phaneuf noted as to this recommendation that the LCWG is not recommending an actual certification, where an individual gets a piece of paper saying that individual is certificated. He said the working group went beyond that to ask FAA to require air carriers that intend to haul special cargo to have a full-blown approved special cargo program.

- Special cargo is currently defined by FAA as: "cargo that requires special handling and securing/restraining procedures within the limitations specified in the Airplane Flight Manual (AFM) or Weight and Balance Manual (WBM) approved by the Type Certificate (TC) or Supplemental Type Certificate (STC)."

Mr. Phaneuf noted that this definition recently came out in OpSpec A002. He further noted that when the working group started, the only place special cargo was defined was in AC 120-85A, but because the working group was privy to the new definition (now published in OpSpec A002) while it was working, that is the definition the group used.

- The working group strongly feels the implementation of a comprehensive and approved program provides the best framework to enhance safety and allows the flexibility necessary to accommodate various air carrier's operations.

Mr. Phaneuf provided an overview of the following recommendations for an FAA-Approved Cargo Program:

- Those air carriers intending to transport special cargo would submit a comprehensive Special Cargo Program to the FAA for approval.
- This Program would:
 - Identify specific training required to ensure compliance with Airplane Flight Manuals (AFM) applicable to the design approval holder (DAH) limitations and Weight and Balance Manuals (WBM).
 - Set forth requirements for the knowledge, abilities, and skills required for the special cargo analysis function (SCAF) in support of a specific air carrier's special cargo operations.

Mr. Phaneuf clarified that when an air carrier submits a plan to the FAA for approval, the LCWG is recommending that it contain those items.

- The FAA would review and approve the Special Cargo Program using both the air carrier's principal operations inspector (POI) and principal maintenance inspector (PMI), with approval by one or the other, thus providing the agency with broader oversight and knowledge of the carrier's special cargo operations.
- Continuous improvement and oversight of the air carrier by the FAA could be accomplished through the air carrier's Safety Management Systems (SMS) program.

Mr. Phaneuf noted there was one dissenting position to the LCWG's recommendation report, and that the full dissenting position and the LCWG's response thereto is contained in Appendix A to the Recommendation Report. Mr. Phaneuf noted that the dissent was presented to the working group at a face-to-face meeting, that the group had a good open discussion about it, and that the dissenter was encouraged to present its position in writing, which is what is included in Appendix A to the report.

Mr. Phaneuf summarized the LCWG's rationale for their recommendations, then concluded his presentation with the following summary:

- The LCWG believes, as outlined in the report, our recommendation for adoption of the FAA-Approved Special Cargo Program will enhance safety for the persons engaged in the loading and supervision of the loading of special cargo.
- It will improve the preparation and accuracy of special cargo load plans and provide both air carriers and the FAA with the flexibility to address a wide range of operations while enabling more effective FAA oversight.
- The LCWG also believes its recommendation best incorporates the elements of the safety management system (SMS) philosophy by providing air carriers with a more effective means to use ongoing training data to continually improve their programs.

Ms. MacLeod asked a question about the LCWG's recommendation. She expressed her belief that, based on reading the entire recommendation report, what the LCWG is really asking for is a rule that mirrors the hazmat rule, but that is not what the recommendation says. Ms. MacLeod said the recommendation is asking for a special program, not a rule, which could be done by OpSpec. Mr. Phaneuf said the LCWG is not specifically asking for a rule, it is making the recommendation that FAA have a special cargo program. He further noted that within that program, for FAA to be able to ask carriers to submit their program, some rulemaking is probably going to have to be done that contains those baseline requirements. Mr. Phaneuf said that is for the FAA to decide, and it was not in the LCWG's tasking. Mr. Paul stated that if the FAA adopts the recommendation for a special program, then they will have to put out a rule – part 121 subpart Z – that, like the hazmat rule, directs the carrier. Mr. Phaneuf noted that the LCWG did draft an example

of a subpart Z, but it did not include it in the recommendation report. Ms. MacLeod stated she will abstain from voting to approve the recommendation report, because she cannot vote for a recommendation that does not give FAA clear guidance on whether there needs to be a rule, or whether the LCWG will accept an OpSpec. She noted that the FAA rules by OpSpec all the time, about which people complain all the time. Ms. Rose noted there are also voluntary Advisory Circulars, so carriers can put those in place to enhance safety, instead of waiting for a rule, which could take a long time. The group was concerned with the length of time for a rule to address a safety issue that was a result of an accident carrying special cargo.

Mr. Paul noted that regardless of whether a carrier carries special cargo, it still needs to be aware of what special cargo is, and he pointed to pictures of special cargo included in the back of the recommendation report.

With respect to the issue of oversight, Mr. Paul stated that, like in hazmat, if a carrier submits a revision, the carrier will have to go through the whole program again, meaning there will be constant oversight by both sides. Mr. Paul also stated that the LCWG did not recommend a rule because it will take years. He agreed, however, that to enforce an approved program, there will need to be a rule. Mr. Paul said the LCWG does not want regulation by OpSpec or by AC.

Mr. Peri commented that he likes what the LCWG did. He expressed his view that the short solution is an industry spec/best practice, through industry groups such as A4A or NACA. He noted concern, however, as to how FAA will approve a program that is not regulatory in basis. He noted they deal with this in SMS and maintenance and all of the non-regulatory areas where they want FAA approval for their SMS program for international approval, but they cannot get the approval because there is no basis on which to do the approval. Mr. Peri said he agrees with Ms. MacLeod that probably the Achilles' heel to all of their lives is rulemaking by OpSpec, so from an ARAC perspective, they do have to take the high road, even though it may take a lifetime to get rulemaking through. Mr. Peri further stated that he does not want to lose momentum, and that industry needs to take this as an industry standard/best practice and move forward with it while they are waiting on the rulemaking. Mr. Peri also expressed concern about whether FAA will approve it, because you cannot give an acceptable means of compliance for something if you do not have a rule, so you cannot have an AC for it.

Mr. Peri asked whether the individuals in this program will be identified similar to a required inspection item (RII) environment, where they are individually identified as being qualified and approved. Mr. Phaneuf said the answer is, yes, they do see it that way. He noted the LCWG did not identify individuals, they identified functions that could be accomplished by individuals in different positions, and that different air carriers could use different individuals to accomplish those functions. Mr. Phaneuf further noted the LCWG recommends a baseline set of requirements that is in § 2.8.3 of AC 128-A that lays out the requirements for the Special Cargo Analysis Function (SCAF) function.

Ms. Rose said there are regulations on the books in part 121 that require that you operate aircraft within the operating limits, so there could be some hook. Ms. Rose went on to say, however, that she takes what both Mr. Peri and Ms. MacLeod are saying about recommending that the FAA mandate a rule. She said she also does not want to lose the momentum and that she also likes the idea of best practices. Ms. Rose suggested that maybe there is a legal hook the FAA lawyers can figure out about whether there can be an approved program. Ms. Rose questioned whether the working group would consider modifying the report to include a recommendation for rulemaking.

Ms. MacLeod recommended requesting that the agency work with the applicable air carriers to determine a methodology for approving a program, sans rulemaking if possible, but if not, then while rulemaking takes place.

Ms. Gail Dunham said she shares some of the concerns and would like to think that there would be something more specific going forward. She noted that industry will come up with its own programs. She further noted that the dissent was very well written, and she questioned why you cannot have both existing certification as well as some industry programs. Ms. MacLeod noted the problem is that the FAA will not certificate a foreign individual. Mr. Paul noted they will certificate them through a local office, but the problems with that process is related to a person being certificated by multiple airlines, messing up with one airline and getting their certificate revoked with that airline, but the other airlines not knowing about the revocation. Mr. Paul said that is one of the main reasons the LCWG moved away from that process in its recommendation. Ms. Dunham reiterated that she does not see something more specific going forward. Mr. Paul said it continues to go forward, because as you submit revisions you get constant oversight, like the hazmat program. Ms. Dunham asked whether they think this is recommending higher standards or something new, something more specific for hazmat. Mr. Paul said the continuous improvement always goes on (through ACs, OpSpecs, SMS programs) and this is the best way to do it.

Ms. Dunham asked what will happen next. Ms. Rose stated that, in terms of today, the ARAC needs to decide if it will approve report, with the understanding that the minutes of the meeting will reflect the member's concerns. Ms. MacLeod noted she is going to abstain from voting because, although she is not an expert in this area vote, she does not like regulation by OpSpec.

Ms. MacLeod said she said she agrees with Mr. Peri that one of the best ways to move it forward since rulemaking is going to be in abeyance for the next 3 or 4 years, is for industry to figure out the best way to get an approved program for applicable air carriers. She went on to say that certification of individuals is not going to solve this problem, and that she agrees with the LCWG's response to the dissent. Mr. Paul said that in the interim, the cargo focus team is going to every single airline to review their exact processes to make sure they are complying. He noted the team has finished 28 out of 68 airlines.

Ms. Dunham said they cannot say for sure that rulemaking won't happen for 10 years, because they don't know when the next accident might be and that's what tends to drive rulemakings. Ms. Dunham also said the vote for the report should include the members' concerns. Ms. Rose said she will ensure that the minutes reflect members' concerns.

Ms. Liu stated her view that the recommendation report is fair – that it provides a response to the tasking, that it provides an alternative, and that it analyzes what the tasking required. She stated that the recommendation report along with the discussion captured in the minutes will be analyzed by the program office as they go to implement it. She further stated that, with something that is very important and rises to the safety level, if rulemaking is the mitigation to address it, then they will pursue it. Ms. Liu reiterated that, in this situation, the recommendation report fairly analyzed the tasking, provided a good rationale, and provided an option that they suggest and are recommending.

Mr. Hennig moved to accept report. Mr. Doug Carr seconded the motion. Ms. Rose asked whether anyone opposed the motion, and no one did. Ms. MacLeod noted she was abstaining from the vote. Mr. Peri said he would vote to accept report because it does what the ARAC asked the LCWG to do. He went on to suggest, however, that as part of ARAC's submitting the report to the Agency, the ARAC should recommend that it goes to rulemaking. Ms. Rose stated that as the ARAC Chair, it is her responsibility to submit the report formally to FAA and she is happy in cover letter to the FAA to reflect Mr. Peri's point (that ARAC is recommending the implementation of the LCWG recommendation is that it go through a formal rulemaking process) and refer to the minutes.

Ms. Dunham recommended revising the motion to include the caveat that the transmittal letter will reflect the discussion in the minutes. Mr. Hennig revised his motion to accept the recommendation report. Another member asked Ms. Rose to re-state what the motion is they are voting on. Ms. Rose said the motion is for the ARAC to accept the report provided that the transmittal letter to the FAA reflect the fact that rulemaking is the preferred method to implement said recommendation, that further discussion from ARAC members in terms of the concern for FAA-implementation of this program are reflected in the minutes to this meeting, and that the ARAC accepts the recommendation of the report provided the additional points herein. Ms. MacLeod said that if they are saying that ARAC recommends the report be used for rulemaking purposes – which Ms. Rose confirmed – she will vote to accept the report. Mr. Hennig moved to accept the recommendation report with the transmittal letter as described by Ms. Rose. Ms. Dunham seconded the motion. The ARAC accepted the recommendation report (with transmittal letter).

Flight Test Harmonization Working Group (FTHWG) Wet Runway Stopping Performance Recommendation Report

Mr. Lee presented an overview of the Wet Runway Stopping Performance Recommendation Report ([FTHWG- Wet Runway Topic9 Final Report.pdf](#)). Mr. Lee noted

the report addresses Tasks 2 and 3 of Topic 9, which are rulemaking and guidance materials. Mr. Lee pointed out that in the current part 25, landing distance is to be specified only for dry smooth runways. He stated that the current practice is to take a dry smooth runway demonstration and multiply it by 1.92 to get wet runway distance. He noted there are Takeoff and Landing Performance Assessment (TALPA) recommendations for wet runway distances, but those recommendations are operational requirements, not regulatory requirements. Mr. Lee stated that a few NTSB investigations led to the realization that wet runways might be more slippery than previously thought, and that is what brought the issue to the FTHWG. He stated that, because there might be a deficiency in the way they have been calculating landing distance on a wet runway surface, the FTHWG asked each of the OEM's to compute the flight manual and factored distances compared to the TALPA distance for wet runway. The result was that the margins available were all over the map, which reinforced the notion that arbitrary application of single factor to dry runway distance does not represent the distance it will take for an airplane to stop on a wet runway.

Mr. Lee reviewed the following FTHWG recommendation ([FTHWG Wet Runway Proposed Regulation TAE 2 PowerPoint.pdf](#)) to address Task 2:

- Define a new wet runway part 25 landing distance which accounts for the physics involved in stopping an airplane on a wet runway.
 - Based on realistic air distance (not currently done certified dry).
 - Based on reverse thrust credit.
 - Current method results in significant margin reductions when:
 - 3 engine airplanes have 1 thrust reverser.
 - 4 engine airplanes have 2 thrust reversers.
 - Poor thrust reverser designs.
 - No reverse thrust airplane designs.
 - Full temperature accountability.
 - Full engine failure accountability (at or after 50 feet).
 - 10% factor in part 25 all engine landing distance.

Mr. Lee then reviewed the following FTHWG operational rule recommendations:

- Recommend operational factors for wet runway landing distance:
 - Should be the same for all operations (exception pure CFR 191).
 - Adequate to cover the reduced wet runway wheel braking observed in incidents.
- Recommend all operating rules be based on a 15% increase on part 25 wet runway landing distance (25.126 proposed).
 - Results in total wet runway landing distance margin at dispatch of 26.5% ($1.10 \times 1.15 = 1.265$) on wet runway all engine landing distance.
 - Results in total wet runway landing distance margin at dispatch of 15% if an engine fails at/after 50 feet.
 - Results in landing distance necessary to account for reduced wet runway wheel braking observed in overruns (no additional margin added).
- In recognition of reduced landing distances of 135EOD/91K Fractional Ownership.

- Recommend the 15% factor above.

Mr. Lee noted there was consensus in the working group that an improved wet runway rule is appropriate and needed to ensure adequate margin throughout the operating envelope, and that it was also agreed that it is desirable to have a single method used for wet grooved/PFC or other new wet runway friction surface.

Mr. Lee then reviewed the dissenting opinions from Embraer and ALPA, and discussed the FTHWG's responses to those dissenting opinions. He noted the dissent from Embraer about the size of the operational factor resulted in a compromise. He noted that the dissent from ALPA on reverse thrust credit led to discussions within the working group and again at the TAE, after which ALPA ultimately agreed with the recommendation.

Finally, Mr. Lee reviewed the following recommendations related to wet grooved/ PFC improved performance:

- Recommend codifying potential wet grooved/PFC improved performance in § 25.126.
 - Discretion of the administrator as to airport/operational requirements.
- Recommend considerations be given to:
 - Manufacturer AFM coverage.
 - Runway construction.
 - Weather conditions.
 - Runway condition.
 - TOA assessment criteria.
 - Operator conditions.
 - Deviations from Criteria.

Mr. Lee concluded by stating that the FTHWG has drafted proposed regulation and proposed guidance, and recommended that ARAC accept the FTHWG's recommendations.

With respect to the reverser discussion, Mr. Paul asked if the reversers are in op, whether there would be a penalty on the MEO, so they know what they have to do to calculate that. Mr. Lee said it won't be a penalty for the MEO, the data will be available on the flight manuals for them. Mr. Paul then asked how the crew will know when to access unless there is some kind of notice directing them to where the data is. Mr. Lee said he cannot quote it off the top of his head. Ms. MacLeod said, in the end, there is going to be hand-off here, and a whole set of dominoes lined up before this recommendation.

Ms. MacLeod commented that these are not being written as performance based rules, they are being written as very prescriptive rules. She went on to suggest that, since airport runways are being built all the time, ARAC should recommend that, if the FAA considers rulemaking in this area, it makes it performance-based. Ms. Rose noted that if the FAA does rulemaking, there will be notice and comment. Ms. MacLeod stated that whenever the ARAC is recommending rulemaking these days, it should probably think about performance-based as oppose to prescriptive.

Mr. Carr asked whether there was any analysis done on the impact of the new proposed operating rules on the ability for current aircraft to use existing runways that they are currently able to get into. Mr. Lee said, yes, and that the analysis can be seen in chart 3 in the report. He further stated they compared the 1.265 factor to the TALPA time of arrival and made sure they were within that, so there would be no change to the TALPA recommendations. Mr. Carr noted the TALPA recommendations didn't change operating rules as specifically as this. He said he is trying to make sure they are not removing access capability for aircraft currently able to get onto wet runway. He asked Mr. Lee whether he sees a negative impact on current operations as a result of the operating rule changes. Mr. Lee said in general, no, he doesn't think so, and the analysis is in the report. Mr. Carr noted that smaller airports usually have less runway in terms of being able to absorb some pilot technique factors. Mr. Lee said he doesn't think what they are recommending is going to impact the allowable landing distance, but margins will change because we have a current rule that accounts for a wet runway with just a single factor and we are now going to account for the physics involved. He noted that the operational factor is going to get a lot smaller, but because we are accounting for the actual physics of the stopping situation, they think it's more accurate. Mr. Carr asked Mr. Lee to confirm that this remains a dispatch requirement as opposed to a non-dispatch actual landing calculation requirement (which Mr. Lee confirmed), so there should be no surprise in terms of where the airplanes can and can't go. Ms. Rose pointed to the Table of Contents in the Report, and noted that although there are a couple of discussions on pages 17 and 18 regarding operating rules, it is not clear whether the working group really analyzed the impact. She further stated that the minutes will reflect the concerns that this could potentially have impacts on operating rules and the need to ensure that there is no conflict.

Mr. Hennig moved to accept the report, and Mr. Paul seconded the motion. The ARAC voted to accept the report. Mr. Carr asked for clarification that the ARAC's transmittal letter to the FAA will capture some of the discussion that operating rules do impact access, and whether or not this has a direct impact be part whatever analysis FAA would have to do to do a rule. Ms. Rose responded that all ARAC transmittal letters should capture the minutes if there is discussion one each report.

Other Business

Mr. Andrew Appelbaum asked for an update from FAA on the list of regulations to be repealed. Ms. Liu stated that FAA received ARAC's recommendation report with about 60 deregulatory items. She noted that in October, DOT put out a *Federal Register* notice requesting E.O. 13771 recommendations for deregulatory actions and FAA received the recommendations related to aviation, of which there were approximately 26 (some of which could be split into sub-tasks, leading to about 30 recommendations). She stated that FAA has combined the list of ARAC deregulatory items and DOT deregulatory items, and that is the list FAA is working from. She noted that DOT made a request to each of the modes to provide a plan of action for those, and so the FAA has gone through the list of 90-ish items and separated them in four categories, which it is discussing with

the DOT Regulatory Reform Task Force (RRTF), which meets on a monthly basis. Ms. Liu noted those four categories are: (1) suggestions of deregulatory items that were already in rulemaking; (2) items that would be a good candidates for rulemaking; (3) items that would be a good candidate for ARAC; and (4) items that present a challenge (statutory requirements, political considerations, safety concerns, etc.). Ms. Liu stated there are not many on the list in the last category – items that present a challenge. Ms. Liu said FAA is working with the RRTF regularly to identify items off the list that FAA is going to start rolling into its rulemaking plan. Ms. Liu noted that DOT put out a press release that, in the deregulatory list that it had received, the FAA has already initiated rulemaking and taken two regulatory identification numbers out that showed up in the Spring Agenda, related to manuals for part 121 operations. Ms. Liu said the FAA will be working through the list as needed the for the 2-for-1 offsets to balance its regulatory budget over the next few years. She noted it is an active and continuous program.

Ms. Liu noted the ARAC charter expires on a two-year basis, and will expire this year in September. She said the FAA initiated revision of the charter earlier than normal because there were other changes it wanted to include. She said it is in the process now and has been transmitted to OST. She noted the FAA got comments back from OST and GSA yesterday, so it will be addressing those comments. Ms. Liu said she expects the new charter will be approved by September, but she cannot predict whether it will be any earlier than that.

With respect to membership updates, Ms. Liu reminded the ARAC that the Secretary of Transportation has to approve any new members to the ARAC, subcommittees, or working groups, and that vetting can take up to 90 days. She said the FAA has transferred the appointment letters for ARAC and TAE Subcommittee to OST. She asked the ARAC members to let FAA know if they see any changes coming regarding the letters that are in the queue, so FAA can start that process.

With respect to newly established working groups, Ms. Liu said they are in coordination in various stages. She noted that ACS is over at OST, and the others – Avionics Systems Harmonization, Ice Crystals Icing, and Part 145 –are being transmitted to OST. Ms. Liu re-stated that those working groups should not meet until the Secretary approves them. Ms. MacLeod said she is concerned that if working groups are approved but some of the proposed members are not approved, then they will have to go through the whole process all over again. She asked what they can do about alternates, and Ms. Liu suggested they put those alternates on the list. Ms. McLeod noted they did not start that way. Ms. Liu noted that this has been an evolving process with DOT, so she can only answer questions in real time. Ms. MacLeod noted that as soon as the working groups gets approved, they will ask for alternates and it will take 90 days to get those alternates approved. Ms. Liu said FAA has had success that certain requirements laid out for DOT-wide modes have had relief in some cases, and what FAA would ask is whether there is a possibility for relief, and at some point working groups may get that relief, but at this point that is the requirement. Ms. MacLeod asked for confirmation that if they pick ARAC members, or their alternates, they will not have to go through the approval process. Mr. Peri noted that everyone on the ARAC has an alternate. Ms. Liu re-stated that it has been an evolving

process, with requirements for review growing, then she confirmed that if someone is already an ARAC member or alternate, that person can continue to work on the various ARAC tasking activities because those people are already approved and therefore not new members.

Mr. Paul pointed out that InfoShare announced its schedule for September 18-20, so some ARAC members will not be able to attend the ARAC's September meeting. Ms. Liu said she can ask if the ARAC is willing to change its meeting from the normal third Thursday. Ms. Rose was unsure about whether many ARAC members attend InfoShare so it did not warrant a polling to change the date.

ADJOURNMENT

Ms. Rose adjourned the meeting at 4:08 p.m.

Approved by:



Dated: October 3, 2018

Ratified on: September 20, 2018