AVIATION RULEMAKING ADVISORY COMMITTEE RECORD OF MEETING

MEETING DATE: September 20, 2018

MEETING TIME: 1:00 PM

LOCATION: Federal Aviation Administration

800 Independence Avenue, SW

2nd Floor, Bessie Coleman Conference Room

Washington, DC 20591

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

August 8, 2018 (83 FR 39150).

ATTENDEES: Committee Members and Alternates

Yvette A. Rose Cargo Airline Association (CAA), ARAC Chair

David Oord Aircraft Owners and Pilots Association (AOPA),

ARAC Vice Chair

Lirio Liu Federal Aviation Administration (FAA) Office of

Rulemaking, Designated Federal Officer (DFO)

Chad Balentine Air Line Pilots Association (ALPA)

Michelle Betcher Airline Dispatchers Federation (ADF)

Tom Charpentier* Experimental Aircraft Association (EAA)

Ambrose Clay National Organization to Insure a Sound Controlled

Environment (NOISE)

Stephane Flori* Aerospace and Defense Industries Association of Europe

(ASD)

Jens Hennig General Aviation Manufacturers Association (GAMA)

Paul Hudson FlyersRights.org

Chris Martino Helicopters Association International (HAI)

Paul McGraw* Airlines for America (A4A)

Dinkar Mokadam Association of Flight Attendants (AFA)

Keith Morgan Pratt & Whitney

Christopher Oswald* Airports Council International, N.A. (ACI, NA)

Ric Peri Aircraft Electronics Association (AEA)

Phillip Poynor National Association of Flight Instructors (NAFI)

Jennifer Sunderman Regional Airline Association (RAA)

Chris Witkowski Association of Flight Attendants (AFA)

Attendees

Julie Brightwell The Boeing Company (Boeing)

Kevin Davis* Boeing

Maryanne DeMarco Coalition of Airline Pilots Association

Daniel Friedenzohn Embry-Riddle Aeronautical University

Michael Gruber* Boeing

Brian Koester National Business Aviation Association (NBAA)

Brett Levanto* Aeronautical Repair Station Association

Brian Lee* Boeing

Flight Test Harmonization Working Group Chair

George McElwee Commonwealth Strategic Partner

Leslie Riegle Aerospace Industries Association (AIA)

Dennis Shanahan Injury Analysis, LLC

Rotorcraft Occupant Protection Working Group Chair

Peter Thompson* GE Aviation

Marcia Adams FAA

Miles Anderson FAA

Paul Cloutier* FAA

Thuy Cooper FAA

Martin Crane FAA

Jim Crotty FAA

Brent Hart FAA

Sara Mikolop FAA

Chris Parker* FAA

Lakisha Pearson FAA

Brandon Roberts FAA, Alternate Designated Federal Official

Mary Schooley* FAA

Walter Sippel* FAA

Giles Strickler FAA

Alan Strom* FAA

Ian Won* FAA

Amy Lubrano The Regulatory Group/FAA

Welcome and Introduction

Ms. Yvette Rose, ARAC Chair, called the meeting to order at 1:03 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.

For the September 20th meeting packet, see

https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information/documentID/3742.

Ratification of Minutes

Ms. Rose noted one correction on page 10 of the minutes from the ARAC's June 21, 2018, meeting, to change a reference from the "American Flight Attendants" to the "Association of Flight Attendants." Mr. Chris Martino moved to approve the corrected minutes and Mr. David Oord seconded the motion. The ARAC voted to ratify the corrected minutes from the June 21, 2018, meeting. See

https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information?documentID=3725.

Status Report from FAA

Status of ARAC Charter Renewal

^{*}Attended via teleconference.

Ms. Liu noted that the ARAC's charter was renewed on September 14, 2018, and that the renewed charted is available in the *Federal Register* (83 FR 47396), has been filed with Library of Congress, and is available on the Committee website. Ms. Liu pointed out that the charter is for 2 years. Ms. Liu indicated that the list of new ARAC members has not yet been approved by the Secretary of Transportation, but she expects it to be approved before the next ARAC meeting in December 2018.

Status of New Working Groups

Ms. Liu noted that new subcommittee and working group members no longer have to be cleared by the Secretary, so the new working groups that were waiting for approval as of the last ARAC meeting can begin working. These new working groups include Avionics Systems Harmonization, Ice Crystals Icing, Part 145, and the continuation of a tasking for Airman Certification System Working Group. Ms. Liu noted that these working groups had been given tentative tasking due dates, and that FAA understands there may be a delay. In response to a question, Ms. Liu clarified that working groups can add members without having to get the approval of the Secretary. Ms. Rose said that because the new working groups did not get approval to start working until August, the TAE Subcommittee may need to change the deadlines for some of these working groups.

Ms. Liu received a question related to rotorcraft protection and whether there is any rulemaking going on related to how to handle vertical take-off and landing (VTOL) vehicles in a crash. Ms. Liu responded that, under the certification basis, FAA is working to try to address powered-lift vehicles. Ms. Liu said there is some consideration for how to allow them to operate, because they can currently be certified under part 21. She said there will most likely be some operational requirements if they are going to be operating under parts 135 or 121. Ms. Liu said there is a rule listed on the Spring Agenda that will address the definition to include powered-lift so they can get a certificate for commercial operations.

There was a question about the timeline for the Part 145 Working Group to begin working, and Mr. Ric Peri responded that the working group's first meeting will be held the week of December 10th.

Status Reports

Airman Certification Systems Working Group (ACSWG)

Mr. David Oord, ACSWG Chair, provided a status report for the ACSWG, including an overview of membership, a summary of tasking, an overview of the ACSWG's schedule, and the status of tasking.

Mr. Oord then provided a brief overview of the ACSWG's August 2018 Interim Recommendation Report (see

https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information/documentID/3724).

Mr. Chris Martino asked Mr. Oord to clarify the status of the rotorcraft training guidance. Mr. Oord noted that the working group's recommendation may be voted on today, and, if approved by the ARAC, it will be forwarded to the FAA. Mr. Oord further noted that, going forward, all proposed new standards will be published to *Federal Register* and open for public comment. In response to a question about whether organizations need to wait until the standard is published to submit comments, Mr. Oord said they will accept comments now. Ms. Rose noted that the FAA has committed to putting all new standards (if approved by ARAC) into the *Federal Register* for public comment and then after processing public comments, finalizing the standard.

Mr. Peri noted that one of the shortcomings with the performance-based rulemaking process is that, with the heavy emphasis on guidance documents, the public has lost a source of information related to the FAA's choices with respect to those documents (i.e., preambles to final rules). Mr. Peri said he is afraid the process for finalizing standards will not capture adjudication of public comment. Ms. Liu said that making adjudication of comments public for all advisory circulars would be a big workload increase, but the FAA could work directly with interested groups to discuss the reasons for changes. Mr. Oord said the FAA told the working group that the FAA would come back to the working group with redline documents showing changes to recommendation. Mr. Peri noted that does not solve the problem, because those will not be made public, and the public could only get that information by filing a FOIA request. Ms. Liu noted that this is an issue the FAA is aware of.

At the request of Mr. Hudson, Mr. Oord provided a summary of the interim recommendation report before the ARAC voted.

Mr. Martino moved to accept the Interim Report. Mr. Chad Balentine seconded the motion. The ARAC voted to accept the ACSWG's Interim Recommendation Report.

Ms. Rose noted that the ACSWG plans to have an interim report at each ARAC meeting. At the Chair's request, the FAA agreed to notify the ARAC membership when each standard approved by the ARAC is published in the *Federal Register*.

Transport Aircraft and Engine Subcommittee (TAE)

Mr. Keith Morgan, TAE Subcommittee Chair, provided an overview of the TAE's schedule. Mr. Morgan noted that the ARAC would receive a status update for the Flight Test Harmonization Working Group and final recommendation reports from the Transport Airplane Metallic and Composite Structures Working Group and the Transport Aircraft Crashworthiness and Ditching Working Group. Mr. Morgan said the Ice Crystals Icing Working Group would hold its first meeting in January 2019, and Ms. Liu noted the

Avionics Systems Harmonization Working Group is tentatively scheduled to meet in October 2018.

Flight Test Harmonization Working Group (FTHWG)

Mr. Morgan provided a status report for the FTHWG 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.

In response to a question from Ms. Rose about the list of outstanding topics, Mr. Morgan said he will work with Mr. Lee to come up with a submittal plan for the remaining topics. Mr. Morgan clarified that the plan is for the FTHWG to submit reports per topic, rather than wait to submit one big report when the working group has completed all of its tasking.

Recommendation Reports

Rotorcraft Occupant Protection Working Group (ROPWG)

Mr. Dennis Shanahan, ROPWG Chair, briefed the ARAC on the ROPWG's Task 6 Final Recommendation Report (see

https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information/documentID/3722). Mr. Shanahan explained the basis for the ROPWG's recommendations, as well as the guiding principles the ROPWG followed in making its recommendations. Mr. Shanahan noted that the ROPWG made 20 recommendations, which were by majority vote. He further noted that there were only two official dissenting positions, but that some of approvals for the recommendations were somewhat lukewarm.

Mr. Shanahan summarized the following three high priority recommendations to the FAA:

- 1. The FAA should require, in all rotorcraft, the installation (retrofit) of crash resistant fuel bladders that meet the requirements of the 50-foot fuel cell drop test in or out of structure, and that demonstrate a minimum of 250 lb. puncture resistances.
- 2. The FAA should require installation (retrofit) and proper usage of upper torso restraints (shoulder harnesses) in all rotorcraft seating positions in all rotorcraft. should be required in all occupied seating positions.
- 3. The FAA should mandate the use of appropriate restraints for all occupants of rotorcraft, regardless of the age of the occupant. "Lap Children" should not be permitted in rotorcraft.

Mr. Shanahan summarized the following two high priority recommendations for legislative changes:

- 1. Congress should require the NTSB and FAA to determine impact conditions, occupant injuries, and injury mechanisms in all aircraft accident investigations. Adequate funding for this added requirement should also be provided.
- 2. Congress should offer tax credits and/or other financial incentives to operators for installing critical safety equipment and/or upgrading to helicopter models equipped with critical safety equipment.

Mr. Shanahan then summarized the ROPWG's five recommendations for research/safety studies, two recommendations for changes to current regulations/guidance, three recommendations to industry, three recommendations for near-term implementation by the FAA, and two recommendations for public rotorcraft. *See* attached ROPWG Recommendation Report Briefing.

Finally, Mr. Shanahan summarized the two dissenting opinions (from Sikorsky and Airbus), as well as the ROPWG's rebuttal to those opinions.

In response to a question about whether the ROPWG identified any regulations, policies, or guidance that were impediments to the voluntary installation of equipment, Mr. Shanahan said the ROPWG did not do a deep-dive into the issue but it did find that Advisory Circular guidance was sometimes problematic.

Pointing to the high priority recommendations for legislative changes (on pg. 92 of the report), Ms. Rose expressed concern about having an ARAC report that makes recommendations to Congress. She asked whether the report could be changed to recommend that industry groups lobby or make requests of Congress, instead of the ARAC making a recommendation directly to Congress. This led to a discussion among the members about the appropriateness of the ARAC making recommendations to Congress. A suggestion was made for the report to simply make a statement about the need for something to be done without directly recommending that Congress do something. Several other members expressed their opinions that the ARAC should focus its recommendations on the FAA and that the report should be changed to clarify that the ARAC is not making a recommendation to Congress.

In response to a question about a timeline for implementation of the recommendations, Mr. Shanahan stated that the working group could not agree on specific timelines but that most members felt the timeline should be 3-5 years. Mr. Shanahan noted that the working group generally felt the first two high priority items need to happen very quickly.

Mr. Hudson noted that most injuries and deaths occur from impact, and asked what if anything the group recommended to reduce that, including requiring aircraft be retrofit with airbags. Ms. Rose noted this is a scope issue because the ROPWG's charter was limited to fuel systems. Mr. Shanahan also noted that there is no data to show deaths

could be prevented by air bags. Mr. Hudson also raised the issue of a recent crash in the East River¹ (in which the aircraft flipped over, sank and the passengers drowned) and asked whether any of the ROPWG's recommendations would prevent that. Mr. Shanahan noted this was a driving factor for recommending a change to part 91 to require passenger briefings on egress procedures. Mr. Hudson asked about the fact that the aircraft's flotation devices failed, and Mr. Shanahan noted that the working group looked at impact and fire only.

To address concerns raised by ARAC members, Mr. Shanahan agreed to revise the recommendation involving Congress to reflect that the FAA and NTSB should request funding to address the issues raised in the report. Mr. Clay moved to approve the report with the changes discussed. Mr. Hennig seconded motion. The ARAC voted to approve the ROPWG's Recommendation Report. Mr. Paul Hudson, FlyersRights.org, opposed the motion.

Ms. Rose requested that Mr. Shanahan make the noted changes and submit the revised report to the ARAC chair, and she will submit it to the FAA.

Transport Airplane Metallic and Composite Structures Working Group (TAMCSWG)

Mr. Michael Gruber, the Working Group Chair, presented an overview of the Transport Airplane Metallic and Composite Structures Working Group Recommendation Report (see

https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information?documentID=3723). Mr. Gruber provided the following summary of the recommendation report:

- Rule recommendations are consistent with current industry practice.
- Associated guidance and policy material recommendations are intended to ensure a common understanding consistent with industry practice.
 - 1. Generalize the environmental damage threat (replace corrosion with environmental deterioration).
 - 2. Require applicants to address all modes of damage (add manufacturing defects to paragraph (b)).
 - 3. For metals allow methods other than "rogue flaw" to establish thresholds.
 - 4. Require applicants to establish a limit of validity (LOV) based on the "aging space."
 - 5. Allow analysis to substantiate thermal loads to show freedom from widespread fatigue damage (WFD).

¹ See NTSB Accident Number ERA18MA099 Preliminary Report.

• Recommend additional effort beyond the working group focusing on structural damage capability of single load path (SLP) structure.

Ms. Rose asked for clarification regarding the recommendations for additional effort focusing on SLP structure; specifically, she asked whether the recommendation is for ARAC to task another working group. Mr. Morgan said a request came from the FAA for this working group to continue to look at this issue, and they are requesting an 18-month period for that tasking, keeping it inside the existing working group.

Regarding the working group's recommendation to allow analysis to substantiate thermal loads to show freedom from WFD, a question was asked about whether the data for the analysis is coming from the same exact material. Mr. Gruber responded in the affirmative, yes, that understanding is coming from the same material processing; it is an empirically rooted analysis that is applied for the thermal loading.

Mr. Hennig moved to accept the report. Mr. Balentine seconded the motion. The ARAC voted to accept the TAMCSWG's Recommendation Report.

Ms. Rose noted that the ARAC will need to approve the expansion of the tasking (to address single load path structures) and that, since this is a TAE working group, TAE will have a role as well.

Transport Airplane Crashworthiness and Ditching Evaluation Working Group (TACDWG)

Mr. Kevin Davis, TACDWG Chair, presented an overview of the TACDWG Recommendation Report (see

https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information/documentID/3743). Mr. Davis provided the following summary of the recommendation report.

- Crashworthiness:
 - o Proposed new airframe level crashworthiness rule and associated guidance.
 - Ability to use similarity to previous acceptable designs as means of compliance option.
- Ditching:
 - Proposed revised ditching rules; §§ 25.563, 25.801, and association guidance.
- Equipage and protocol:
 - o Proposed harmonization with EASA rules and some reorganization of emergency equipage and evacuation rules; §§ 25.785, 25.801, 25.809, 25.810, 25.811, 25.512, 25.1411, 25.1415.

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

Mr. Davis addressed the dissenting positions on Crashworthiness (AFA, German Aerospace Center (DLR), NASA, Airbus, Boeing, Bombardier, Dassault, Embraer, Gulfstream, and Textron). He noted that AFA (Association of Flight Attendants) dissented based on its concerns about allowing the use of similarity as a means of compliance for crashworthiness. He further noted that DLR had similar concerns regarding using similarity for composite products that have been certified to recent special conditions but may not have had sufficient experience to demonstrate those special conditions are adequate. Mr. Davis stated that the original equipment manufacturers (OEM) (Boeing, Bombardier, Dassault, Embraer, Gulfstream, and Textron) were initially concerned about the potential cost impacts of an airframe rule but ultimately supported the draft rule with the ability to leverage similarity to previous acceptable designs.

Regarding the position of the OEMs, Mr. Chris Witkowski (AFA) stated it was AFA's understanding that there was no consensus on the proposal. He questioned when additional discussion had occurred, and who had participated in those discussions, to change that. Mr. Davis said that the only additional discussion occurred during the TACDWG's presentation to the TAE [during its May 10, 2018 meeting], when Victor Wicklund (FAA) asked if there was enough of a position defined for the FAA to move forward with it. Mr. Davis noted that, at the time, Ian Won and Jeff Gardling (both FAA) expressed their belief that there is enough material in the report to move forward in a rulemaking process. Mr. Davis further noted that the TACDWG was then given an action to document the FAA's position in the report, which was added to the Final Recommendation Report executive summary. Mr. Witkowski noted that he was not aware of the addition to the Executive Summary. Mr. Davis said there was no TACDWG meeting about this because it did not change anyone's documented position in the report. He noted that the FAA's position was inserted at the bottom of page 8 and on page 9 of the Executive Summary. Ian Won (FAA) confirmed the statement in the Executive Summary regarding the FAA's position (i.e., that sufficient data is provided in the report for FAA to move forward). Mr. Witkowski asserted that the attribution for that statement is not clear, and that the report should specify that it is the FAA's belief (not any of the members') that sufficient data is provided. Mr. Davis confirmed that it is the FAA who has this belief, and that what was added in the Executive Summary was done so at the direction of the TAE.

Mr. Mokadam (AFA) expressed concern that the proposal endorses the use of similarity. Mr. Davis said that is not what the proposal says; there is no rubber stamp implied.

Mr. Mokadam also pointed out that on page 2 of the final report (authorization for release), Candace Kolander was listed as approving the report on behalf of AFA, but she was not working for AFA at that time the report was finalized. Mr. Mokadam asserted that AFA did not provide a concurrence to the report. Mr. Davis said that he received an

email from Candace Kolander, concurring with the report. AFA reiterated that she no longer represented AFA at the time of the report's release. Mr. Davis suggested it be documented in the minutes, that at the time of the report's release, the original AFA member was no longer representing AFA. AFA agreed with Mr. Davis. AFA further stated that Ms. Kolander's name should be removed from the document. Ms. Rose noted that Ms. Kolander was a working group member for the majority of the work. AFA noted, however, that the authorization for release reflects the final report, and it gives the impression that there was agreement or consensus on the report, which is not true. Ms. Rose suggested putting a reference in the report and the minutes that Ms. Kolander was no longer employed by AFA as of the end of October 2017. Mr. Mokadam said people will not look at the minutes. Ms. Rose suggested that people will look at the dissents, as well. Mr. Mokadam noted that, although people will look at the dissents, they will also look at the Executive Summary, which says the proposed guidance material achieved general consensus. Mr. Mokadam said he is not sure who was in general consensus with the guidance material on crashworthiness. Ms. Rose noted this language is consistent with most reports, in which general consensus assumes a majority. Mr. Mokadam said his understanding of general consensus is that you are in agreement with the recommendation going forward, and that there was not general consensus on the crashworthiness recommendation.

Mr. Davis pointed out that that Ms. Kolander participated in working group meetings and discussions for 2 years as a representative of AFA, up until the end. He acknowledged there was a difference between when she left and when she gave her concurrence, but she was the only AFA representative on the team for the 2 years that the team was working on the content of the document. Mr. Davis noted that AFA's dissenting position on the similarity issue is documented accordingly; it was put in the report verbatim. Mr. Davis agreed to send Mr. Witkowski the email from Ms. Kolander. Mr. Oord asked the purpose of the authorizations for release, and suggested removing those pages entirely and just including a membership list instead. Mr. Davis noted that the authorization for release pages confirmed that the document accurately reflects the discussions held, including the dissents. Mr. Davis agreed to remove the pages from the report (pages 2 and 3), and to resubmit the report to Mr. Morgan to submit to the ARAC.

AFA raised whether the working group had general consensus in light of the all the dissents to the crashworthiness section. AFA expressed concern that there is not general consensus on that recommendation. Mr. Davis clarified that many of those dissents are actually clarifying positions, and that the only strong dissent was from AFA on the use of similarity at all. He noted that DLR was okay with the use of similarity as long as it was applied to aircraft that have a significant amount of service history. He further noted of the other participants, that 10 voted for it and 3 abstained on that point. Ms. Rose asked whether the ARAC could support the position that there is general consensus with this number of dissents. AFA suggested that the report be reworded to remove phrases like "general agreement" and "general consensus," because those characterizations are not accurate. Ian Won stated that the FAA fully understands the positions and has enough information in the report to move forward. Mr. Witkowski asserted that, regardless of the characterization of FAA's statement, the ARAC needs to carefully consider any

recommendations it is making to FAA. He said AFA would feel better if the ARAC would look at the dissents again before voting on whether to approve the report. He asserted that there are important issues raised in the dissents that should be considered before the ARAC gives its approval to pass this recommendation on to the FAA. He requested that the ARAC be given until the next meeting to consider the report. Ms. Rose noted that ARAC members have had a month to read the report. She said the FAA probably pays more attention to dissents, so she is not concerned that AFA's positions are not going to be heard loud and clear, both in the report and the meeting minutes. Ms. Rose said she does not know what the ARAC re-reading the dissents will do for the working group's work. She expressed her belief that the working group has met its tasking.

Mr. Witkowski restated that he wants to make sure the ARAC had time to read dissents, and moved to defer the vote on the report to the next meeting. Mr. Balentine seconded the motion for the point of discussion. Mr. Balentine then asked for clarification as to what the delay is for. Mr. Witkowski said the purpose of deferring the vote would be to give people more time to review the report and the dissents. Ms. Rose said that as a point of discussion for the motion on the table, the ARAC's role is to determine if a report meets the scope of the tasking per the committee manual. She noted that AFA's concerns will be reflected in the minutes and that the report will be amended to remove the signature pages. Mr. Witkowski stated that AFA would like the opportunity to re-work the Executive Summary. Ms. Rose noted that there is nothing that precludes Mr. Witkowski from sending a letter to the FAA or to the ARAC Chair. Mr. Mokadam asserted that the Executive Summary implies there is general consensus of all the working group members. Mr. Oord stated that is not how he read the report; he understood AFA dissented. Mr. Mokadam restated his belief that the "general consensus" language should not be used anywhere in the report, because it does not meet the test per FAA and ARAC guidance.

The ARAC voted on the motion to delay the vote on the report until the next ARAC meeting (December 13). Mr. Witkowski and Mr. Hudson (FlyersRights.org) voted in favor of the motion to delay the vote. All other ARAC members present opposed the motion to delay the vote.

Mr. Witkowski then moved to delay the vote on the report to give AFA the opportunity to work with the TACDWG Chair to amend the Executive Summary. He suggested that the ARAC could then hold a vote on the report by email. Ms. Sara Mikolop (FAA) said the ARAC would need to have a full public meeting to reconsider and vote on the report. Mr. Hudson asked whether the ARAC could approve it today and then consider a revised Executive Summary alone at the next meeting. Mr. Peri pointed out there was a similar issue last year, when one of the ARAC members submitted a dissenting report in conjunction with an approved recommendation report. He suggested AFA submit a dissenting report with this report. Ms. Rose asked if they would be amenable to voting today to accept the report and to give AFA a certain period of time to prepare a dissenting report to submit in conjunction with the final recommendation report.

ARAC Record of Minutes September 20, 2018 Page 13 of 13

Chris Martino moved to approve the final report and to allow AFA to submit a separate dissenting paper or letter to the FAA as an attachment to the final report, before it is sent to the FAA. Mr. Witkowski asked that AFA's dissenting paper be inserted right after the Executive Summary. Mr. Hudson seconded the motion. The ARAC approved the motion to accept the TACDWG's final recommendation report and to keep the report open for 30 days (until October 20th) to allow AFA to submit a dissenting report/letter. AFA opposed the motion to accept the final recommendation report.

ADJOURNMENT

Ms. Rose adjourned the meeting at 3:29 p.m.