

AVIATION RULEMAKING ADVISORY COMMITTEE

RECORD OF MEETING

MEETING DATE: March 16, 2017

MEETING TIME: 1:00 PM

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

PUBLIC ANNOUNCEMENT: The Federal Aviation Administration (FAA) told the public of this Aviation Rulemaking Advisory Committee (ARAC) meeting in a Federal Register notice published March 2, 2017 (82 FR 04126).

ATTENDEES: **Committee Members**

Todd Sigler	The Boeing Company (Boeing) ARAC Chair
Dr. Tim Brady	Embry Riddle ARAC Co-Chair
Lirio Liu	Federal Aviation Administration (FAA) Office of Rulemaking, ARM-002 Designated Federal Officer (DFO)
Dale Bouffiu	Federal Aviation Administration (FAA) Office of Rulemaking, ARM
Chad Balentine	Air Line Pilots Association, International (ALPA)
Michelle Betcher	Airline Dispatchers Federation (ADF)
Ambrose Clay	National Organization to Insure a Sound Controlled Environment (NOISE)
Gail Dunham	National Air Disaster Foundation (NADF)
David Oord	Aircraft Owners and Pilots Association (AOPA)
Phil Poynor*	National Association of Flight Instructors (NAFI)
Yvette Rose	Cargo Airline Association (CAA)
Damon Cox	Airline Dispatchers Federation (ADF)
Jennifer Sunderman	Regional Airline Association (RAA)
Michelle Brignone	FlyersRights.org
Robert Ireland	Airlines for America (A4A)
George Novak	Aerospace Industries Association of America (AIA)
Jens Hennig	General Aviation Manufacturers Association (GAMA)
Stephanie Flori*	AeroSpace and Defense Industries Association of Europe (ASD)

Attendees

Cory Cummins*	Air Methods Corporation (Air Methods)
Stephen Grotta*	Federal Aviation Administration (FAA) Aircraft Maintenance Division, AFS-330
Julia Greenway	Federal Aviation Administration (FAA) Office of Rulemaking, ARM
Marie-Anne Dromaguet*	Transport Canada (TCCA)
Kenneth Baker*	CAE, Inc.
Tony Price	Federal Aviation Administration (FAA) Office of Technical Training
Nikeita Johnson	Federal Aviation Administration (FAA) Office of Rulemaking, ARM-24
Timothy Roe	Joint Venture Solutions, LLC. (JVS)
Matthew Wenzinger	Joint Venture Solutions, LLC. (JVS)
Sid McGuirk*	Embry-Riddle Aeronautical University (ERAU)
Leisha Bell	Federal Aviation Administration (FAA) Flight Standards Service
Scott Nutter*	Delta Air Lines
Joe Jacobsen*	Federal Aviation Administration (FAA) Northwest Mountain Region, ANM-111
Terry Biggio*	Federal Aviation Administration (FAA)
Mark Phaneuf	Air Line Pilots Association, International (ALPA)
Rikki Gardonio	Air Line Pilots Association, International (ALPA)
Kristen Sanders	Aurora Sciences, LLC
Brian Lee*	Boeing

Paul Drechsel*	University of North Dakota
James Wilborn*	Federal Aviation Administration (FAA) Aircraft Certification Service
Chris Parker*	Federal Aviation Administration (FAA) Aircraft Certification Service
Jeff Garland*	Federal Aviation Administration (FAA) Aircraft Certification Service
Mary Schooley*	Federal Aviation Administration (FAA) Northwest Mountain Region–Transport Airplane Directorate, ANM–111
Judith Watson*	Federal Aviation Administration (FAA) New England Region
Jeffery Finley*	Federal Aviation Administration (FAA)
Alan Strom*	Federal Aviation Administration (FAA)
Dorina Mihail*	Federal Aviation Administration (FAA)
David Chien	Federal Aviation Administration (FAA) Aviation Policy and Plans Office (APO)
Pete Dumont	Air Traffic Control Association (ATCA)
Monica Cunningham	Advanced ATC
Dan Cunningham	Advanced ATC
Peter Ivory	Federal Aviation Administration (FAA)
Maria Sudokis	Federal Aviation Administration (FAA)
Mike Doherty	Federal Aviation Administration (FAA)
Jim Crotty	Federal Aviation Administration (FAA) Office of Rulemaking, ARM
Michael Hachey	Unite Here International Union
Jonathan Gray	Federal Aviation Administration (FAA) Deputy Director Office of Technical Training
Steve McMahon	Federal Aviation Administration (FAA)

Mamie Mallory	Federal Aviation Administration (FAA) Office of Civil Rights
Donnie Simons	Federal Aviation Administration (FAA) Office of Civil Rights (Contract Support)
George McElwee	AMFA
Brian Zane	Federal Aviation Administration (FAA)
Paul Takemoto	Federal Aviation Administration (FAA)
Brent Hart	Federal Aviation Administration (FAA) Office of Rulemaking
Matthew Amato*	Federal Aviation Administration (FAA) Office of Human Resources

*Attended via teleconference.

WELCOME AND INTRODUCTION

Mr. Todd Sigler, Aviation Rulemaking Advisory Committee (ARAC) Chair, called the meeting to order at 1:09 PM and thanked the ARAC members in addition to the public for attending. He invited the attendees to introduce themselves.

Before proceeding to the ratification of the minutes, Mr. Sigler wanted to call to everyone's attention; the agenda identified three new tasks for discussion. However, the read ahead material for these tasks was not distributed and therefore will not be discussed at today's meeting.

Ms. Lirio Liu, Federal Aviation Administration (FAA) Designated Federal Officer (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 the meeting materials presented are public information (as available on the website), and whatever ARAC has that will be distributed for presentation during the meeting, is appropriate for distribution thereafter.

Ratification of Minutes

Mr. Sigler asked for any revisions or amendments to the minutes from the December 16, 2016 meeting. Mr. Ambrose Clay (NOISE) indicated a wording issue in the Loadmaster Certification Working Group section, second to the last paragraph reading "or on the ground during the loading process caused damage to the aircraft", he believed should read, "or on the ground

during the loading process that caused damage to the aircraft”. There was a motion to approve and there was a unanimous “in-favor” for approval of the minutes.

RECOMMENDATION REPORT

Air Traffic Controller Basic Qualification Training Working Group

Mr. Sid McGuirk, Embry-Riddle Aeronautical University (ERAU), presented the recommendation report for Phase 1 (Training) of the Air Traffic Controller Basic Qualification Training Working Group and thanked the work group. Mr. McGuirk pointed out the team composition included two individuals with significant expertise in part 141 and 142 training, Mr. Brian Dempsey of Flight Safety International and Mr. Scott Nutter of Delta Air Lines, and their experience was invaluable to the team. Mr. McGuirk also noted that the second to the last paragraph of the Executive Summary indicated group consensus on two points. First, if the FAA decides to pursue using External Training Providers (ETP) in lieu of the FAA Academy for initial Air Traffic Control Training, then the working group believes rulemaking like the part 142 model, provides the best route for establishing certification and oversight of ETPs. Secondly, ETPs can provide initial qualification training for Air Traffic Basics, Initial En Route, and Initial Tower Cab training currently provided by the FAA Academy.

The group met 14 times (7 times face to face and 7 times virtually) during the period between May 2016 and February 2017 and received briefings and information from not only the FAA, but also from Nav Canada and the National Air Traffic Services (NATS) company in the United Kingdom.

Mr. McGuirk noted that although not within the original tasking, any consideration of changing the basic qualifications for Air Traffic Controllers in the future would be the responsibility of the Office of Personnel Management (OPM) and would require additional discussion and negotiation with the ATO.

The working group computed a rough order of magnitude (ROM) cost of providing initial qualification training at the FAA Academy for the 10-year period of 2016-2025 as \$590,878,484. In determining this ROM, the working group used only publicly available information on the internet along with data from the Air Traffic Division of the Academy and the ATO Management Services organization. The working group relied on the Controller Work Force Plan that the FAA submits to Congress as its baseline information source. This cost projection does not account for potential cost reductions from (historically) 20% of new hires having previous ATC experience and not having to attend the Academy.

The working group proposed two different External Training Provider models for the FAA to consider. In the first model, the applicant applies to the ETP of their choice to receive the training and later applies to the FAA after passing an FAA exam. In the second model, the applicant would first enter the FAA, and complete the Human Resources cycle of aptitude and behavioral testing, medical certification, and security investigation prior to receiving Basic Controller training. Through an applicant-chosen ETP in both models, the applicant would self-fund their training rather than the FAA funding to train applicants.

The working group acknowledged risks regarding the implementation of these recommendations. The first risk is how to effectively implement a program such as this and transition operations from the FAA Academy and to the ETPs. The second issue is that the equipment an ETP would require is expensive, including the facilities and faculty to support the training, which would require a large investment by any ETP. Also, the FAA does not currently have an infrastructure in place to oversee the ETP such as the Flight Standards District Offices provide for part 141 and 142 training providers. This is one reason the working group is recommending rulemaking to establish, manage, and oversee such an initiative.

Mr. McGuirk concluded that it was the consensus recommendation of the working group; the FAA adopts the second model from the report to utilize External Training Providers for its initial new hire training program. Under this scenario, the applicants apply to an FAA vacancy announcement, proceed through the FAA Human Resource cycle, and then select and receive training from an ETP. The working group recommends the providers assume responsibility for initial AT basics, initial Tower Cab, and initial En Route excluding Terminal Basic Radar training and TRACON Skill Enhancement Workshop (TSEW) the FAA Academy currently provides. Lastly, the working group recommends the FAA use rulemaking to establish the program to mirror those of part 141 and 142 training providers.

The National Air Traffic Controllers Association (NATCA) has a dissenting position with the recommendation of the working group. The working group provided the verbatim NATCA dissenting opinion regarding the recommendations of the Air Traffic Controller Basic Qualification Working Group in the report.

Mr. Sigler thanked Mr. McGuirk for the report and opened the floor up for discussion. Mr. Ambrose Clay (NOISE) had a question relating to the original driver for this study. Initially, Mr. Ambrose thought it was to free up technical resources so they were available for more advanced training associated with NextGen. As Mr. Clay sees it, one of the benefits of this recommendation is a cost reduction by pushing the cost back onto the student for the training. Mr. Clay suggested a hybrid approach where the FAA could achieve costs savings by not paying the per diem of approximately \$4000 to \$8000 per student per class at the FAA Academy, since this was a significant portion of the ROM valuation. Mr. Clay's hybrid approach suggests a cost savings is achievable by requiring the student to fund their stay while at the FAA Academy. This would allow for the cost savings to remain within the FAA for use in supporting additional training rather than going to an ETP.

Mr. McGuirk responded by saying such an approach is an option and consideration of the working group. However, Mr. McGuirk noted there was considerable history in this area. At one point in time, the FAA did not pay per diem during a 2 or 3-month period for students but quickly changed the policy, though he was not aware of the reasons behind the policy change.

Ms. Gail Dunham (NADF) felt that part of this is driven by NextGen and how it would be much further along by 2020. She stated that part of this is how the FAA plans to fund the training that NextGen implementation requires, though NextGen may be further in the future than planned. She asked if anyone has any projections on when the FAA would need the NextGen training.

Mr. McGuirk responded by saying the working group understands the FAA driving force behind this is to allow for the reallocation of resources the FAA uses for initial qualification training to support advanced training for controllers currently in the field. Moving the initial qualification training from the Academy to ETPs would provide the necessary resources to support such training.

Ms. Dunham further stated that if NextGen is not going to be available in 2020 it would impact some of these recommendations. She agrees with Mr. Clay, that the FAA is trying to free up resources to train for NextGen when it appears to her NextGen will be further out than the FAA expects and you can free up resources by training fewer controllers. Ms. Dunham, then stated her organization (NADF) has always been a supporter of NATCA as a professional organization and respects their dissent and the NATCA opinion makes a lot of common sense.

Mr. Robert Ireland (A4A), asked if there is a vision for what happens to the FAA Academy under privatization based on the budget proposal coming out on the day of the meeting? Mr. McGuirk responded stating he spent approximately 20 hours with the Government Accountability Office (GAO) last year when privatization was a hot topic with respect to the House of Representatives Bill under consideration at the time. Mr. McGuirk personally feels the recommendation fits very well into a privatization model.

Mr. Clay asked if technology should make the job of the air traffic controller easier, then why is there so much emphasis on the complexity or technological advances of the training going forward?

Yvette Rose (CAA) inquired about if the initial intention of tasking to get more controllers into the pipeline or to save the FAA funds or both.

Mr. Sigler said that he understands the genesis and intent of asking the ARAC to look at this was so the FAA could reallocate resources relative to training and advancement of the current workforce versus training the new work force.

Ms. Rose responded that she believes the third-party vendor solution is a viable solution and the Collegiate Training Initiative (CTI) schools are great. However, she has a concern regarding the risk of reducing the number of applicants or the ETPs not being able to meet the training needs of the FAA. Mr. Chad Balentine (ALPA), said he sees phase 1 as a building block to get ready to go into phase 2. However, he feels any time that there is a dissenting opinion, which we should take a pause and really look at what they say, especially, since this is from the organization that the people receiving the training will become a part of in the future. Mr. Balentine stated he believes there is an opportunity here to address the phase 1 concerns of NATCA prior to entering into the work of phase 2.

Mr. McGuirk stated he believes there are several pending decisions regarding the transition into phase 2. Mr. McGuirk stated that the working group is ready to move forward if the ARAC and ATO provide direction.

Mr. Sigler and Ms. Liu agree that there should be a pause for the FAA to evaluate the options the working group provides before moving into phase 2.

Mr. Balentine asked if, given more time, could the working group achieve 100% consensus. Mr. McGuirk commented that NATCA was a full partner during the year and that they provided input directly and with consultation of their leadership. Mr. Sigler responded providing more time without a long-term vision would probably not add value.

Ms. Dunham stated that the report was excellent, but there are many unknowns and the FAA is under pressure to utilize FAA time more effectively. However, until we have more specifics, it is hard to move forward.

Mr. Clay asked if accepting the report means that we accept the recommendations. Mr. Sigler and Ms. Liu responded affirmatively.

Ms. Rose motioned to accept the report and it was seconded by Dr. Brady. Three members countered with a motion not to accept the report and the remaining members recommended acceptance. Mr. Tony Price added that he believed NATCA would not change their dissent until they saw the full picture meaning both phase 1 and 2.

Mr. Sigler stated that there was a clear majority to accept the report and recommendations thereby passing it on to the FAA. He commended the working group's efforts and a well-written and well-organized report, citing this as an example of the exceptional work of ARAC working groups.

FAA Status Report

Ms. Liu started by giving an update on what is happening within the FAA over the past few weeks in reference to several Executive Orders (EO) regarding rulemaking and regulations, how the FAA is responding, and how it will involve the ARAC and its working groups.

Ms. Liu noted that the FAA plans to ask the ARAC to take a look at what they would consider rules that would be deregulating, relieving, or cost beneficial to the industry. She mentioned that we should also consider some additional criteria of those rules we may want to repeal, replace, or modify, that would eliminate jobs, inhibit job creation, that are outdated, unnecessary, or ineffective, or impose costs that exceed the benefits, or that create a serious inconsistency. The FAA will prepare tasking for the ARAC in time for Ad- Hoc meeting, tentatively scheduled for April 13, 2017.

Ms. Dunham requested that the information be sent out to all of the ARAC members. Ms. Liu responded by stating that the ARAC members would be sent a copy of the executive orders, in PDF format, within the next few days as well as with a copy of the meeting minutes when they are ready.

At the conclusion of the status report, Mr. Sigler made note that there were new tasks that were published in the public agenda that were expected to be presented during the meeting; however the tasks have not been provided to the ARAC at this time.

STATUS REPORTS FROM ACTIVE WORKING GROUPS

Rotorcraft Bird Strike Working Group (RBSWG)

Mr. Corey Cummins, Air Methods Corporation, provided an update for the Rotorcraft Bird Strike Working Group. He reviewed the completed parts of the work plan, and then went over the work in-progress; including how the team will focus in the upcoming meetings on the economic aspects of the recommendations. In their latest meeting in January, 2017, they came to consensus regarding Part 27 aircraft by breaking them down into three sub-groups according to occupant size. This allows them to refine recommendations by aircraft size. The team did discuss other means of categorizing the aircraft such as speed or weight; however, number of occupants was the best choice. They will incorporate considerations for new and existing aircraft into the size sub-groups. For Part 29 aircraft, the team feels the current regulations in place for bird strike protection is adequate as a single group. He did note that the recommendations primarily regarding windscreen protection, will not apply to aircraft with a Do Not Exceed (DNE) or maximum cruise speed of 80 knots.

Mr. Sigler asked Mr. Cummins on how they are proceeding relative to their schedule. Mr. Cummins responded that they are making good progress and will focus their work in the next few meetings around the economic considerations of their recommendations. However, they spent a considerable amount of time scrubbing the FAA database of rotorcraft (approximately 20,000) to categorize them into the respective sub-groups. With that daunting task complete, they can focus on capturing and documenting the recommendations to meet the September delivery date. There were no other comments or questions from the committee.

Loadmaster Certification Working Group

Mr. Mark Phaneuf, Air Line Pilots Association (ALPA), provided an update. The working group recently held their third face-to-face meeting in February and seventh meeting overall via telecon on March 14th. The group review of Ops Spec A002, Definition of Terms and Abbreviations, updated in January 2017 from AFS-200 and 300, including bulk cargo, certified Unit Load Device (ULD), and special cargo is complete. By using smaller break out teams from within the group, they evaluated high level certification options for detailed analysis. During the last face to face meeting each small team scored a set of options using a Likert Scale and methodology. Using this scoring method, allowed the team to further refine the options and even eliminate some of them due to their lack of effectiveness for enhancing safety. This also allowed the group to develop some hybrid options by combining options together. At the February meeting the FAA economist provided information on how to calculate and justify the cost of an option and what information they would need to provide for each option cost-benefit analysis. The FAA economist also provided guidance on how to filter the accidents and incidents from the initial list and what FAA sources to use in supporting their analysis. Work continues in studying Part 121

accidents allowing us to reduce the list to specific special cargo accidents to use in the cost benefit analysis.

Training continues to be a concern for the team, if they do recommend certification. A representative from AFS-200 Qualification Program (AQP) provided a briefing on a methodology currently in use in the air carrier world. The team is on schedule to complete their work.

Ms. Gail Dunham requested the working group provide a written update for the committee to review. The working group has agreed to provide written material in the future.

Ms. Yvette Rose stated that they no longer had a rulemaking analyst attending the meeting. Ms. Rose felt this person would be an asset to the team. Ms. Liu and Mr. Bouffiou noted an analyst is not normally present at all meetings but generally only at the initial and final meetings. However, they took the action to consider providing one when the group identifies a need for one.

Airman Certification Systems Working Group (ACSWG)

Mr. David Oord, Aircraft Owners and Pilots Association (AOPA), provided an update. The working group has been extremely busy over the last couple of months since the last update to the ARAC. The focus of the group since releasing the standards via the internet has been on collecting feedback. The working group is looking to release recommendations related to the Private, Instrument, and Commercial Airman Certification Standards (ACS) in June 2017. Changes to the Airline Transport Pilot certification standards are on track and are being made according to changes made in the private and instrument as well as Commercial Airplane standards. The working group expects to release them in the third quarter of this fiscal year.

The ACS exam review board has continued to review the test bank. Regarding guidance, the FAA is reviewing group recommendations for the new edition of the Aviation Maintenance Technician (AMT) General Handbook, (FAA-H-8083-30A). Addressing Change Management, there have been updates to the FAA Airman Testing website, Information for Operators (InFO) clarification on navigation task requirement equipment, as well as an Aviation International News (AIN) article on FAA and Industry Modernizing Airframe and Powerplant Test standards. Mr. Oord made mention of the next scheduled meetings which include a face to face meeting at the end of the March at RTCA, another meeting in June, and another meeting sometime in September. The final meeting will come in December to finalize and wrap up the tasking.

Mr. Sigler made note that the links that were provided in the report were appreciated and very helpful to be included before he opened the floor to any comments or questions.

Mr. Ireland made mention that over the last several months there has been a huge rising concern regarding the flow and availability of AMTs over the next few years. Among the impediments has been the certification standard for the AMTs as well as their curriculum that requires a lot of wasted tuition dollars based on the career they may be choosing within aviation. He asked if this was something that would get any attention within this tasking.

Mr. Oord responded by stating that there is no requirement that, because they are combining the standard, one must complete all that certification together. Realistically, the vast majority don't

just get a mechanic general certification. They tend to get the full AMT with AMP certification. Mr. Ireland countered by stating they are waiting for the FAA to come out with Part 147, and that they remain concerned that someone wanting to work on advanced avionics would still have to learn everything else. Mr. Oord made note that this has been discussed and that there is a segment of the working group focusing on that.

Transport Airplane and Engine (TAE) Subcommittee

Mr. James Wilborn (TAE) began stating that all four tasking's, he will be giving updates on, are all "Green" meaning that they are going well and have not encountered any problems or delays.

Engine Harmonization Working Group

Mr. Wilborn stated that this working group was tasked with a 150-hour engine endurance testing analysis, and the group was formed back in 2014 at the request of AIA and AIT to develop an alternate to the testing climate today, due to high bypass and open rotor engines. This report has been completed on time and is with TAE for review now and Mr. Wilborn expects it to be approved at their next meeting in May, in time to be presented to ARAC at the July meeting.

Flight Test Harmonization Working Group

Mr. Wilborn stated that this working group was tasked with a very significant project on airplane performance and handling characteristics and that they started work early in 2014. This has been a multi-phase project to look at updating a large number of requirements in subpart B of Part 25 related to flight testing. In the first phase the group worked to list all the items that needed work and prioritize how they would take them on. In the second phase, the group took the top 12 highest priority items and worked through those. These items relate to all kinds of different areas from flight envelope protection to side stick controls to stability, runway excursions hazard assessments. At this point they have completed nine of the twelve items and the tenth is almost completed with a little bit of work left to be done. The final two tasks, per the extended schedule that the ARAC agreed to, have been moved into what has been deemed as phase 3. The report for phase 2 has been completed and is with TAE waiting for approval at their next meeting in May so it can be to ARAC in time for the meeting in July.

Transport Airplane Metallic and Composite Structures Working Group

Mr. Wilborn stated this group has been underway for just about two years, where they have been working on damage tolerance analysis as well as fatigue evaluation. The scope of the work encompasses some previous ARAC recommendations as well as broadening and extending the whole subject of damage tolerance and fatigue to the more performance based and independent of material from which the aircraft is made. Many rules are currently metal centric but things have been progressing to a more composite base. Currently, the group is working on generalizing these requirements to handle the differences in the materials and make them more independent of the type of materials used. They have twelve sub teams working on the various tasks and they are making good progress on them. He believes that they will finish their report in October of this year and then deliver their report to the committee so that it can make it to the ARAC by next January.

Transport Airplane Crashworthiness and Ditching Evaluation Working Group

Mr. Wilborn mentioned that this work is in a similar vein to that of the metallic and composite structure working group where they are looking at the requirements for the area and recognizing the different materials aircrafts are being made from, while also considering the lesson learned from the US Air accident in the Hudson River and the lessons that can be learned from that when it comes to ditching. This working group is made up of four sub teams that are working on advanced history in each of the areas, including; airplane crashworthiness, ditching evaluation, and cabin safety. They are on track to complete their work and present their report to ARAC in March of next year. Finally, Mr. Wilborn discussed the current action items pending and the schedule of upcoming working group and sub group meetings. Mr. Wilborn added that the co-chair wanted him to stress the importance of all the members trying to participate in these meetings. With resource constraints in mind, there is a great deal of effort going into harmonization that depends on having all of the players participate.

Mr. Sigler inquired about the group's readiness for phase 3, and touched on potential revised tasking. No other comments or questions were put forth by the members.

CONCLUSION

Ms. Liu took a moment to thank the members and expressed that she looks forward to their attendance at the Ad-Hoc April teleconference meeting. The final thing Ms. Liu noted is that the next regularly scheduled ARAC meeting will be June 15th.

Mr. Sigler then thanked the committee members and made note of the great discussion that occurred.

ADJOURNMENT

Mr. Sigler adjourned the meeting at 2:58 PM

Approved by: _____
Todd Sigler, Chair

Dated: _____

Ratified on: _____