

**AGING TRANSPORT SYSTEMS RULEMAKING
ADVISORY COMMITTEE
MEETING MINUTES**

Date: October 22-24, 2002
Place: Holiday Inn Select
Wichita, Kansas

DAY ONE: 9:00 AM

Administrative

Mr. Kent Hollinger, the Aging Transport Systems Rulemaking Advisory Committee (ATSRAC) Chair, called the meeting to order at 9:00 a.m., after which Mr. Charles Huber, the ATSRAC Executive Director, read the advisory committee briefing statement. Following Mr. Huber's statement, Mr. Hollinger welcomed the group, thanked NBAA and its member organizations for hosting the meeting, and reviewed the agenda (Handout 1).

Approval of July 2002 Minutes (Handout 2)

Mr. Hollinger opened the floor for comments on the July 2002 minutes. Following requests for minor changes, Mr. Huber discussed including an attachment to the minutes. He advised the Committee that a Working Group (WG) 8 member (Mr. Edward Block) had presented written comments via e-mail on WG 8's final report. This brought about the issue of whether it is appropriate to include the comments in the group's report. According to ATSRAC's Operating Procedures, it is not appropriate to include Mr. Block's comments in the WG's final report. However, while Mr. Block did not attend the July Committee meeting where WG 8's final report was approved, and he is not in attendance today, it is appropriate to include his written comments as an attachment to the July minutes. Therefore, Mr. Huber proposed to add the below statement to the end of the WG 8 discussion of their final report (see page 2 of July 2002 minutes):

Mr. Ed Block (Global Air Safety Institute) was not present during the discussion but presented the written comments shown in Attachment I.

Following Mr. Huber's statements, he asked for comments from the group; there were none. Mr. Hollinger asked for a vote on accepting the minutes with the recommended additions and changes. The Committee's vote was unanimous to accept the minutes with the approved additions and changes.

Future Meetings

Mr. Hollinger asked Mr. Cotti to report on the progress on holding the January 2003 meeting in Savannah, Georgia. Mr. Cotti confirmed that arrangements were underway to hold the meeting in Savannah, which would include a tour of the Gulfstream facility. Mr. Hollinger asked Mr. Huber to proceed with processing the waiver for a change of venue. He then asked the Committee to reaffirm that they agreed to hold the meeting in Savannah. The Committee was unanimous in their support to move the meeting to Savannah. Mr. Hollinger added that the focus of the meeting would be a 1 ½ day session (January 22-23) for WG 10 to make their final report. In addition, there may be discussions about the future of ATSRAC, a report on the Research and Development Program, and whether an April 2003 meeting would be needed.

EZAP Status at Northwest Airlines (Handout 3)

Mr. Randy Boren (Northwest Airlines and WG 9 Co-Chair) began his presentation, announcing the Atlanta base of Northwest Airlines is closing. He then gave an overview of the DC9 Prototype EZAP (see Handout 3: DC9 Prototype EZAP Update), covering a sample of a cockpit analysis using worksheets ATSRAC approved with W G 9's final report. In reviewing the tasks applied to the DC9 cockpit, he noted that several tasks represent new tasks not currently in Northwest's maintenance program, or an expansion of the scope of current tasks. Therefore, he noted, this would increase the level of access for any given maintenance check. This increase in the level of access would increase annual costs about 5 percent.

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EAPAS Implementation Proposal (Handout 4)

Mr. Ric Anderson (Air Transport Association) discussed the air carrier response to the EAPAS Implementation Plan presented by the FAA on the last day of the July 2002 meeting. He indicated industry was approaching an unprecedented \$9 billion loss this year and "could not afford anybody's political agenda or political time table." He went on to discuss details (see Handout 4: EAPAS Implementation Plan—Air Carrier Input) about the position of ATA members with respect to the compliance time frame for implementing the EZAP. He noted that with all the other soon-to-be-implemented rules like Widespread Fatigue, Corrosion Prevention and Control Program, and Service Difficulty Reporting, he doesn't see how industry can also meet the FAA proposed EAPAS implementation schedule.

Discussion

Mr. Hollinger questioned whether Mr. Anderson's recommendation for a revised implementation schedule was significantly different from the revised schedule (proposal #3) proposed by W G 9. Mr. Anderson responded saying his proposal was different because it did not mandate when to accomplish the EZAP tasks, but rather when the program had to be approved and implemented into the operator maintenance program. Following comments by Mr. Boren on WG 9's schedule, Mr. Hollinger summarized the discussion. He said the only difference in WG 9's proposal 3 and Mr. Anderson's proposal was a 36-month time frame for the initial cleaning and inspection of the CEEPF (cockpit, electrical and equipment bay/E&E, and power feeder cables) compared to a 60-month time frame proposed by ATA. Additional comments came from Mr. Wayne Maxey (Boeing) and Mr. Chris Davies (Airbus and AECMA), who voiced concern that the 12-month period given the manufacturers under the FAA's plan was not enough time for them to develop the EZAP tasks. They indicated a need for at least 24 months to develop the tasks for the operators to follow in carrying out the EZAP.

Mr. Huber commented on the differing approaches to the implementation schedule suggested by ATA as compared to that proposed by the FAA. He indicated that while ATA's approach was from a cost viewpoint, the FAA's approach is from a safety viewpoint. He said because of these differing approaches, it would be difficult to reach consensus. However, the FAA did understand industry's situation and would do their best to minimize impact to that situation. And he noted the FAA would work to develop safety-based rationale for the compliance times.

Mr. Anderson responded that the reality is there has to be strong safety-related reasons to justify bringing in airplanes outside of their scheduled maintenance checks. He added that the time frames he gave in his presentation are ones the ATA operators believe they could meet, with some caveats. Also, he said FAA's management needed to look at the cost of rules overall that they are asking industry to comply with, and the FAA should do an analysis of the overall impact of their aging rules on industry and perhaps set some priorities for their implementation.

Mr. Maxey said since the ATA membership had stated they could meet a 60-month implementation schedule for the initial cleaning and inspection of the CEEPF, the FAA should determine whether they can support this time frame without compromising safety. Mr. Anderson reiterated an earlier point, stating the operators would like to see the mandated portion of the program stop at the point the approved program is implemented into the operator program. The 60-month period would include a mandate, which went beyond inclusion of an approved program into the operator program to actual compliance and accomplishment of the tasks. With SFAR 88, for example, the worst problems have already been mitigated and this should help justify not mandating the accomplishment of the maintenance tasks and intervals from the EZAP analysis. Instead, the FAA should only mandate the implementation of an approved program into the operator program, then allow the task intervals developed during the EZAP analysis to take over. A participant stated he supported Mr. Anderson's point of view and asked what the risk of implementing EZAP in the manner proposed by Mr. Anderson would be. He also stated that Mr. Anderson's proposal was in line with the Corrosion Protection and Control Program rule, which only mandated incorporation into the operator program.

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Mr. Huber said the ATA proposal may be a viable option. However, he wanted to know if the repeat intervals would be based on the airplane being in a pristine condition or in a degraded condition. Mr. Boren replied that the intervals should be set based on the rate of deterioration and accumulation (of dirt and debris). He added that is why it is crucial to look at existing designs to see what the rates of deterioration and accumulation are, as they may be different depending upon the type of maintenance program each operator now has in place.

Mr. Hollinger restated his earlier comment. He said the ATA proposal is almost the same as WG 9's proposal 3 presented at the July ATSRAC meeting. The only difference in WG 9's report was a recommendation for a 36-month interval for the CEEFP for old airplanes compared to a 60-month interval recommended by ATA. Mr. Ric Anderson agreed with this assessment, but expressed concern that the discussion was a moot point since the Committee had already accepted the more aggressive time frame.

Mr. Anderson then posed several questions to Mr. Boren. He asked, considering the full scope of EZAP, why not focus on establishing viable rejection criteria, not previously available, together with training that goes with GVI and establishing the GVI standard? By implementing a program having these two elements along with existing work cards, what percentage of a solution would there be compared to implementing the entire scope of the EZAP? Mr. Boren responded saying WG 9 fully expected that most MSG3 operators would take advantage of existing zonal inspections across the airplane and take credit for the EZAP derived wiring inspections. The only inspections apart from zonal GVIs would be stand-alone GVIs and detailed inspections. Operators that currently do zonal inspections at the 1C, 2C, 3C, or 4C level, and incorporate training on GVI standards and the types of discrepancies that should be discovered, documented, and corrected when performing a GVI or zonal inspection, are already in compliance with 80 percent of the EZAP.

Following this discussion, Mr. Hollinger informed the group that Mr. Fred Sobeck (FAA) was prepared to present the FAA's revised, proposed EZAP compliance schedule.

FAA EZAP Compliance Schedule (Handout 4a)

Mr. Sobeck discussed the compliance schedule shown in Handout 4a. He indicated that the current schedule was an updated version based on the feedback received at the July ATSRAC meeting. The FAA schedule uses a base effective date of January 2004. The TC holders have 12 months under this schedule to perform an analytical logical procedure or ALP (e.g., EZAP) and make ICA/EWIS tasks available to the operators. Based on lessons learned from SFAR 88, the STC holders would require more time, so they have an 18-month time frame compared to the TC holders' 12 months. WG 9 identified the cockpit, E & E, and power feeder cables as areas of concern and believed they should be cleaned first. The FAA determined that one way to handle the initial cleaning of these three areas was to do an SFAR in part 121. After the initial cleaning, the manufacturer would develop the baseline EZAP for their airplanes, which would be folded into the operators' maintenance program. Once the SFAR requirement is accomplished, operators would eventually incorporate all the EWIS tasks into their maintenance program, then these tasks would be done within the operators' regular maintenance program. Following his review of the FAA compliance schedule, Mr. Sobeck stated that the FAA's approach was not "cast in stone," but was being presented to obtain feedback and recommendations from the meeting attendees.

Discussion

In answer to a question posed by Mr. Ric Anderson (ATA), Mr. Sobeck stated that the manufacturer's baseline EZAP would include the initial tasks and the repeat intervals to perform the same tasks. There would be a 3-year period to complete the entire EZAP. The manufacturer would determine the initial repeat interval that will be folded into the operator maintenance program, then based on the operator service history and maintenance program, the intervals may change for individual airlines via the PMI as they do now.

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Mr. Kirk Thornburg (Northwest Airlines) asked if based on the 3-year time frame just discussed, it could take most maintenance programs 9 to 12 years to open every part of the airplane and complete the entire cleaning and inspecting cycle? Mr. Sobeck responded yes. Mr. Thornburg then asked if this meant that he as an operator would have to accomplish the initial tasks on all areas of the airplane within a 3-year period. Mr. Sobeck replied yes, after which Mr. Thornburg stated this would pose a significant increase in maintenance costs. Mr. Hollinger summarized the discussion by saying the FAA proposal would require that the airplane would be base-lined, which means making it pristine by doing every ICA/EWIS task once, then repeating the tasks at a 9 or 12-year interval.

Mr. Patrick Glapa (Airbus) suggested that the time frames in the compliance schedule contained large gaps and those time frames could be staggered to close the gaps. Mr. Vic Card (CAA-UK/JAA) questioned why the FAA was requiring cleaning and inspection of airplanes less than 5-years old. Mr. Sobeck responded that the intent is that the initial EZAP inspections would not be applied to airplanes less than 5-years old.

Mr. Thornburg commented that the 3-year window to complete initial tasks sounded a lot like the same debate about the Aging Aircraft Safety Rule, where all the aging programs had to be done in a 5-year repeat interval. He expressed concern about how the significant costs to comply with the 3-year window for EZAP would be justified, as the costs are similar to those for the Aging Aircraft Safety Rule. The Aging Aircraft rule is on a 5-year schedule, the EZAP rule is on a 3-year schedule, and both rules will be implemented around the same time. So, it would not make sense to do EZAP within 3-years and open up the airplane again in 5 years to comply with the Aging Aircraft requirements. He said he encouraged the FAA to continue to work on the coordinated plan discussed earlier for all aging programs. Mr. Sobeck responded that he understood industry's concerns and that is why the FAA had chosen to present their compliance schedule today and get feedback.

Further discussions included a recommendation from Mr. Dennis Piotrowski (IFA) that the FAA build upon their current programs like CASS (continuing analysis and surveillance statistical program) under part 121 and other statistical programs to facilitate the implementation schedule. He suggested the FAA use these programs to find out where the problem areas are and then base the implementation schedule on the experience of the individual operator rather than making the schedule arbitrary. Mr. Sobeck asked how would rule language for such a recommendation read. Mr. Piotrowski responded the operators would review their CASS program and would prioritize their zonal inspections based on the problems they identified through CASS. The PMIs could easily monitor this process, he added, and based on the data the operators collected, they could change their maintenance program in terms of the frequency of when they would do a zonal inspection. There would be no need to mandate the base-lining of the airplanes since there are already programs in place that have accomplished this.

Another participant voiced concerns about applying EZAP to the approximately 2500 under 30 seat, turbine-powered airplanes. He said the under 30 seat airplanes typically have interiors installed by one-time STCs done by repair stations. So, the repair station would have to go back to a given date and look at every STC to determine if it is still valid and then do an analysis. This would add significant cost to the rule and significant impact on small businesses. Mr. Sobeck reminded the group that the implementation schedule was for part 121 only and it only applied to part 25 airplanes with a seating capacity greater than 30. He added WG 10 had not yet reported on whether they would recommend including the part 25 small transports under 30 passenger seats in the rule.

Following the discussion, Mr. Hollinger summarized an earlier suggestion from Mr. Thornburg. Given the discussions about the cost impact and safety issues related to the EAPAS rule, Mr. Thornburg recommended ATSRAC should draft a statement to the FAA outlining industry's response to the part 121 implementation schedule. The Committee agreed in a 16 to 2 vote to

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form a small group to draft the statement. Volunteers from Boeing, Airbus, Northwest Airlines, AirTran, and Transport Canada agreed to draft the statement by November 8, 2002, at which time Mr. Hollinger would distribute it to Committee members for review and comment by November 15, 2002.

Administrative

In the interest of time, and to complete Working Group 7's final report, Mr. Hollinger moved Working 10's presentation to the first one on the agenda for the October 23 session.

Working Group 7 Final Report (Handout 5)

Mr. Don Andersen (Working Group 7 Co-Chair) presented the WG's final report as shown in Handout 5: Task 7 Working Group Report to ATSRAC.

Discussion

Mr. Huber stated the FAA had not yet committed to doing the SFAR referenced on page 10 of Handout 5. Mr. Patrick Glapa (Airbus) spoke at length against the need for the Standard Wiring Practices Manual (SWPM), asking why ATSRAC was tasked to develop this document. Mr. Huber responded saying task 7 was an outgrowth of work done for task 4. Also, FAA and NTSB studies have shown there is confusion surrounding the SWPM. The FAA will mandate TC and STC holders to include standard wiring practices in their ICAWs but will not mandate that they develop a standard format. The MBI (Master Breakdown Index) will provide consistency to the mechanics, who use the document. Mr. Hollinger recommended that the WG add a statement in their final report to clarify that the MBI is not applicable to electronic documents and is meant to be used with hardcopy documents only. Also, the MBI can continue to be applied to legacy documents without any requirement to go to a new format. "New" in this context means entirely new, as opposed to a revised format. Also, on page 10 of Handout 5 under "Next Steps", the first item should read "ATSRAC approval of HWG7" instead of HWG6.

Vote on WG 7 Products

Following discussions of Working Group 7's products and recommendations for changes, the Committee in a 16 to 0 vote, with 2 abstentions, agreed to accept WG 7's final report.

Tour of Cessna Production Facility

Following adjournment of the meeting, the group toured the Cessna Production facility.

DAY TWO: 8:30 a.m.

Working Group 10 Status Update (Handout 6)

Mr. Jon Haag (Working Group 10 Co-Chair) gave the WG's update as shown in Handout 6. Following his presentation, Mr. Haag asked for WG 10's recommendation that the FAA not pursue rulemaking on the small transports before the group's report was complete be added to the minutes. The Committee agreed to include the following comment:

"WG-10 requests that the record of today's meeting and the report that will be submitted to the FAA—clearly state that the WG-10 final product is not included at this time. Additionally, due to the NPRM development schedule, we ask ATSRAC to formally request that FAA exclude Part 25 certificated aircraft 6 to 30 seat capacity from any proposed rule language until we have submitted our final report and its recommendations are considered."

Working Group 6 Final Report (Handout 7)

Mr. Vid Variakojis (Working Group 6 Co-Chair) gave the task 6 report as indicated in Handout 7: Task #6 Wiring System HWG Status Report.

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Discussion

Following Mr. Variakojis's presentation of WG 6's final report and recommendations for changes, a lengthy discussion ensued concerning previously submitted dissenting opinions to WG 6's final report by Boeing and Bombardier. The discussion focused on whether, because of the two dissenting opinions, the Committee should reopen discussions on WG 6's products approved at the July 2002 ATSRAC meeting. In a 13 to 4 vote (with 1 abstention), the Committee agreed not to reopen discussions on previously approved sections, and discuss only the remaining areas.

Dissenting Opinion Presentation (Handout 8)

Mr. Jim Bouey (Boeing) presented the dissenting opinion to WG 6's final report as outlined in Handout 8: ATSRAC WSHWG Task 6 Comments and Suggestions. His presentation was followed by a statement from Mr. David Armstrong (Bombardier) on Bombardier's dissenting opinion.

Vote on Working Group 6 Products

Following additional discussions about WG 6's final report, the Committee with a vote of 15 in favor and 3 abstaining, accepted WG 6's products in their entirety with recommended changes. Each of the three abstaining members (Boeing, Bombardier, and Northwest Airlines) stated that they agreed with all other aspects of WG 6's products, except for the areas noted in Boeing and Bombardier's dissenting opinions.

Tour of Raytheon Electrical Shop

Following adjournment of the meeting, the group toured the Raytheon Electrical Shop facility.

DAY THREE: 8:00 a.m.

EAPAS Update (Handout 9)

Mr. Massoud Sadeghi (FAA) presented the update included in Handout 9: Enhanced Airworthiness Program for Airplane Systems (EAPAS) Status.

Intrusive Inspection Recommendation Status (Handout 10)

Mr. Mike Nancarrow (Consultant to FAA) presented the status of the intrusive inspection recommendations as described in Handout 8: Intrusive Inspection Recommendation Resolution Plan.

Discussion

Mr. Card asked if other manufacturers like Cessna had been involved with the intrusive inspection recommendations (IIR). He suggested that some of the IIR could be applicable to small transport manufacturers under part 25. And he suggested sending a letter to these manufacturers indicating what large transport category manufacturers have done with respect to the IIR. This, he said, would help to determine if these recommendations also apply to small transports. Mr. Dave Allen (SAE Aerospace), questioned whether the intrusive inspections done by Airbus, Lockheed, and Boeing would apply to small transport manufacturers. Mr. Bill Schultz (GAMA) responded saying Working Group 10 is currently conducting a comparison of the findings on the large transports to see if they are applicable to the small transports. Mr. Haag followed with a comment saying the next time rulemaking is undertaken, the small transports should be included early on. Mr. Hollinger responded stating ATSRAC's taskings were open-ended, so the Committee first focused on the large transports to get a handle on the overall taskings. However, he and Mr. Huber noted that Mr. Haag's point was well taken. After further discussions about how the IIR would be finalized, Mr. Sadeghi said the FAA expected to release their final report to the JAA and the public in December 2002. Following comments asking if the Committee could review the final report prior to publication, agreement was reached to distribute a draft to the Committee in November 2002 to only review the accuracy of the document. Mr. Hollinger said the draft would be distributed via e-mail by November 18th with a request for feedback by November 30th. Also, a 30-minute period would be added to the January meeting agenda to take

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comments on the report. He cautioned the group that this was not a reopening of the IIRs, only an opportunity to review the final report for clarity and accuracy.

FAA Research and Development Update (Handout 11)

Mr. Rob Pappas (FAA) gave the research and development presentation as indicated in Handout 11: FAA Aging Electrical Systems Research Program Update.

Other Business: None

Review of Open and New Action Items

All prior action items are closed, except items number 11 and 12 from the July 2002 list. The new action items, including those carried over from July are reflected in this document.

Adjourn: 11:45 a.m.

Attendees: (Handout 12)

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ACTION ITEMS

1. Process waiver to hold January 2003 meeting in Savannah, Georgia to tour Gulfstream. (Chuck Huber, Shirley Stroman).
2. Prepare draft statement to the FAA on the FAA's implementation schedule for EAPAS rulemaking and forward to Kent Hollinger by 11/08/2002. (Volunteers from Boeing, Airbus, Northwest Airlines, AirTran, and Transport Canada). Mr. Hollinger will send statement to full Committee for comments by 11/15/2002.
3. Forward, by November 18, an advanced copy of Intrusive Inspection Recommendations to Committee members to review for clarity and accuracy only. Comments due from Committee members by 11/30. (Massoud Sadeghi and Mike Nancarrow).
4. Draft letter to SAE to expedite AFCB Specifications. (Kent Hollinger, Rob Pappas)
5. Provide pictures and actual test materials of damage to wiring WG8 could use to better meet its requirements (Dr. Chris Smith)—item 11 from July AIs.
6. Obtain the USA report on the shuttle about the size of cracks, flaws, and breaches. (Luci Crittenden)—item 12 from July AIs.

KEY DECISIONS AND CONCLUSIONS

- The Committee voted unanimously to include Mr. Ed Block's (Global Air Safety Institute) minority comments to Working Group 8's final report as Attachment I to the July 2002 minutes.
- In a 16 to 2 vote, the Committee agreed to form a group of volunteers (Boeing, Airbus, Northwest Airlines, AirTran, and Transport Canada) to draft a statement outlining the Committee's position on the FAA's implementation schedule related to the EAPAS rulemaking.
- The Committee voted (with 2 abstentions) to accept (with recommended changes) Working Group 7's final report.
- Mr. Jon Haag (Working Group 10 Co-chair), sought inclusion of a statement in the October 2002 minutes that says Working Group 10 recommends the FAA not include small transport category airplanes in their rulemaking until the working group presents their final report. The Committee agreed to this request.
- Because of the dissenting opinions to Working Group 6's final report presented by Boeing and Bombardier, the Committee discussed if reopening deliberations on Working Group 6's draft final report, the contents of which the Committee approved at their July 2002 meeting, was proper. The Committee subsequently voted on the issue (13 against, 4 in favor, and 1 abstention), and agreed not to reopen deliberations.
- In a 15 to 3 vote (with 3 abstentions), the Committee agreed to accept Working Group 6's final report with recommended changes. Boeing, NBAA, and Northwest Airlines representatives (Wayne Maxey, Eli Cotti, and Kirk Thornburg, respectively) abstained because each favored Boeing and Bombardier's dissenting opinion on specific areas of the report. However, each abstaining member said they agreed with all other portions of Working Group 6's report.