

# AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE MEETING MINUTES

Date: July 10, 2003

Place: General Aviation Manufacturers Association (GAMA)  
Washington, DC

## **Administrative**

Mr. Kent Hollinger, the Aging Transport Systems Rulemaking Advisory Committee (ATSRAC) Chair, called the meeting to order at 8:30 a.m., after which Mr. Charles Huber, the ATSRAC Executive Director, read the advisory committee briefing statement. Mr. Hollinger then welcomed the group; thanked (GAMA) for hosting the meeting; reviewed general handouts, which included several news articles on aircraft electrical wiring; and asked Mr. Huber to introduce the new ATSRAC members. Mr. Huber introduced Mr. Mike Romanowski (AIA), who replaces Bob Robeson (AIA), and Carl Story (Garrett Aviation), representing STC organizations, who replaces John Driver (PEMCO). Also, Garrett Aviation replaces PEMCO as an ATSRAC member organization. Following these introductions, Mr. Hollinger started introductions of meeting attendees and reviewed the agenda (Handout 1).

## Approval of April 2003 Minutes (Handout 2)

Mr. Hollinger opened the floor for comments on the April 2003 minutes. Following requests for minor changes, the Committee voted unanimously to accept the minutes with the agreed-upon changes.

## **ATSRAC Rulemaking Suite Implementation (Handout 3)**

Mr. Huber presented the information in Handout 3 ("EAPAS Rulemaking Proposals"), covering a discussion of the FAA's proposed EAPAS (Enhanced Airworthiness Program for Airplane Systems) rulemaking, the rulemaking project schedule, the compliance schedule, the JAA and Transport Canada considerations, and potential taskings for HWG 11. The proposed rulemaking consists of three major components—design, maintenance, and training, covering option 2 from the April 2003 ATSRAC meeting discussions. In addition to changes presented in option 2 for part 25, proposed revisions take into account aspects of the AIA/GAMMA recommendations presented in their March 12, 2003, letter. That is, there will be a part 25 collector paragraph that references some of the existing regulations effecting EWIS rather than repeating each regulation in part 25. In terms of the maintenance component, the FAA proposes the following:

- Implementation of EZAP as recommended by ATSRAC to existing transport category airplanes with a seating capacity of 30 passengers or more or a payload capacity of 7,500 pounds or more.
- A baseline cleaning and inspection of the E&E bay, cockpit, and power feeders by operators.
- Development of EZAP by OEMs.
- Incorporation by operators of EZAP and other maintenance revisions into their maintenance program.

The training component would include publication for comment of the ATSRAC training AC, update of the AC based on comments received, and simultaneous issuance with the EAPAS final rule. Current regulations require operators to provide proper training for their maintenance personnel; therefore, operators would be required under current rules to provide training for the EAPAS-mandated changes to their maintenance programs.

## Discussion

### *Publication of ACs as ATSRAC documents:*

Mr. Fred Sobeck (FAA) stated the intent is for the FAA to publish, sometime in September 2003, a notice of availability (NOA) for both the HWG9 maintenance AC and the HWG8 training AC as ATSRAC recommendations. The ACs would be available to the public on the FAA's website.

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The FAA would revise the documents based on the comments received and publish them as FAA recommendations along with the EAPAS rule. During the comment period for the NPRM, the public would have an opportunity to comment on the revised, draft ACs.

Mr. Hollinger said while he understood the FAA's desire to get public comments on the ACs, the ATSRAC is a public body that is open to whomever wants to attend the meetings. Therefore, the FAA has already received "public" comments on the documents. Mr. Sobeck responded, saying the intent is for the FAA to get a broader representation of comments than was available during the ATSRAC's development of the recommendations. Mr. Huber noted the initial publication of the ACs would be as FAA-endorsed products from the ATSRAC. If the FAA receives substantial comments to these documents, the comments could be dispositioned in the EAPAS NPRM. Also, along with the NPRM, the FAA would publish the documents as FAA draft ACs. The reason for making these documents available prior to the issuance of the NPRM is to allow industry to incorporate the recommendations into their maintenance programs much sooner than would be possible if the FAA waited to release the documents with the rulemaking.

Mr. Vic Card (JAA/CAA) asked if the HWG7 (Standard Wiring Practices Manual) AC would also be published for comment in September 2003. After discussions by the Committee, Mr. Hollinger called for a vote on whether the Committee should recommend to the FAA that they publish the HWG7 AC with the others. The vote was unanimous in favor of this recommendation.

### *Training Component of EAPAS Rulemaking:*

Mr. Patrick Glapa (Airbus) expressed concern about hidden costs built into the training component of the FAA's proposal that would require operators to train their personnel under current regulations for the newly mandated EAPAS-related maintenance functions. Issuing the ACs as ATSRAC documents without including the associated cost for training is misleading, he said. Mr. Huber indicated that although the proposal does not contain a new training requirement, the cost of the training that is implicit in the proposal would still be included in the NPRM. One participant said the training AC sounded like rulemaking by AC, whereby Mr. Sobeck replied that the AC is one method of compliance with the rule, but industry can use other acceptable methods of compliance.

Mr. Glapa reiterated his concern that when operators review the draft ACs, they will not be aware of the associated implementation costs. Mr. Hollinger recommended including a cost estimate from HWG8 in the NOA, whereby Mr. Huber responded that this type of information is typically included in the NPRM. Mr. Sobeck added that the NOA is to simply get comments on the ATSRAC AC and cost data would detract from that. Mr. Ric Anderson (ATA) agreed, saying any industry-wide cost estimates would not be relevant to individual operators, and it is at the time the NPRM is published that operators would be more interested in such cost data. Mr. Hollinger said it appeared the OEMs were concerned about the cost to operators while the operators were not, and he asked for views from the member airlines. Mr. Nick Drivas (Airtran) said Airtran had already incorporated portions of the recommendations in the ACs into their maintenance program. Mr. Hollinger added that at least three major carriers—Northwest Airlines, Airtran, and Delta—had implemented portions of the ACs. The operators in attendance generally agreed that they were not concerned about cost estimates at this point as they typically do their own estimates even for voluntary actions. Following this discussion, Mr. Maxey and Mr. Glapa agreed that Boeing and Airbus would send an information alert to their operators to help them better understand the implications of the training AC.

### EAPAS Rulemaking Schedule (Handout 3)

Mr. Huber explained the current rulemaking schedule, noting that the regulatory evaluation would be completed in December 2003, the NPRM would be published in January 2005, and the comment period would close in April 2005.

### Proposed EAPAS Compliance Schedule (Handout 3)

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Mr. Huber continued his presentation with a discussion about the proposed compliance times for TC holders to develop electrical wiring inspection and maintenance instructions (24 months after the effective date of the rule), the operators to perform a baseline cleaning and inspection of three critical areas (5 years after the effective date of the rule), and the operators to incorporate the TC holder's cleaning and inspection instructions into their maintenance programs (3 years after the effective date of the rule). Thereafter, repeat intervals of cleaning and inspections would be done as required by the maintenance program.

### *Compliance times for EAPAS Rulemaking:*

Mr. Hollinger said, given the compliance times, the operators would need to do the initial cleaning and inspections before they receive the instructions from the TC holders. Mr. Huber responded, saying the regulators had discussed this as a possible weakness; however, there are ways to address this. Several operators (e.g., Airtran, Northwest) have already developed such instructions. Additionally, there is information in ATA Spec 117 and in the HWG9 recommendations. These sources should provide enough information to accomplish the initial cleaning and inspections. However, it is important that we work to standardize such procedures. Mr. Huber requested information from the group on any cleaning and inspection procedures their organizations may have for electrical wiring. Mr. Drivas responded, saying he would make Airtran's procedures available.

Mr. Ric Anderson questioned why the compliance time for operators couldn't start from the date the manufacturers complete development of the EZAP analysis. The manufacturers could complete the Instructions for Continued Airworthiness (ICAW) for the tasks within the proposed 24 months and the operators could complete incorporation of the initial cleaning and inspection into their maintenance programs within 12 months after receipt of the manufacturer's ICAWs. Following discussions about this proposal, Mr. Hollinger called for a vote on whether the Committee should make this recommendation to the FAA. The resulting vote was 12 in favor, 0 against, and 3 abstaining.

### JAA Considerations of ATSRAC Rulemaking Suite

Mr. Huber discussed the outcome from the FAA's July 9, 2003, meeting with the JAA and Transport Canada (JAA/TC) on the topic of harmonization for the EAPAS rule. There is no SFAR equivalent within the JAA/TC and their operating rules are structured differently. There are no problems with harmonization of the part 25 rules. Currently, the JAA/TC plan reflects the intent of the FAA's proposal. That is, the technical content reflects the ATSRAC's recommendations and the compliance times are equivalent. However, because of differences in the FAA's and JAA/TC's rulemaking structure, the implementation vehicles are different. For example, rather than an SFAR, the JAA/TC would use a policy letter.

Following Mr. Huber's remarks, Mr. Card gave a summary of the upcoming change over from the JAA/CA to EASA. On September 28, 2003, the European Aviation Safety Agency, or EASA, will assume responsibility for all aviation safety certification activities of their member states. Since the agency is not fully operational, it is difficult to determine how exactly it will work. The JAA is currently reviewing its rulemakings and is attempting to complete as many as possible. In September, the JAA will turn these over, including the EAPAS rulemaking, to EASA with a recommendation that they move forward with the rulemaking program. There has always been cooperation between the FAA and the European authorities and the expectation is that will continue.

### Potential HWG 11 Taskings (Handout 3)

As indicated in Handout 3 ("EAPAS Rulemaking Proposal"), Mr. Huber discussed possible taskings for HWG11 that would include making recommendations on implementing EAPAS training and an EAPAS maintenance program for existing Supplemental Type Certificates (STCs). Currently, there are no specific tasks assigned to HWG11. The FAA would forward the

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specific tasks to the ATSRAC chair for review by the Committee and a decision on whether to accept the tasks.

### **HWG # 11 Work Plan Presentation and Acceptance (Handout 4)**

Mr. Johan Kala (Continental Airlines) provided an overview of HWG11 as shown in Handout 4 (“ATSRAC—HWG 11”). Since the HWG has not been tasked as yet, Mr. Kala did not present a workplan but gave a status report instead. He said the group met and developed a list of members, which currently total 21. The members represent a broad cross-section of industry. Mr. Rick Anderson asked that his name be removed from the list since the HWG already has good participation from the airlines. Mr. Kala asked if Bill Miller would verify that Raine Pennanen, Transport Canada would be the Canadian representative.

### **HWG # 12 Work Plan Presentation and Acceptance (Handout 5)**

Mr. Kent Hollinger (U.S. Co-chair, HWG12) presented HWG12’s work plan per Handout 5 (“Electrical Wiring Interconnection Systems Research and Development Technology Transfer HWG”).

#### Vote on HWG 12 Work Plan

The Committee voted unanimously to accept HWG12’s work plan.

### **HWG # 13 Work Plan Presentation and Acceptance (Handout 6)**

Mr. Eli Cotti (NBAA) discussed HWG13’s work plan regarding small transport airplane manufacturers’ wiring inspection procedures (Handout 6—“ATSRAC HWG13”).

#### Discussion

The group discussed HWG13’s membership and agreed that Mr. Dave Harper (Department of Defense) would solicit participation by Randy Boren (previous HWG9, U.S. Co-Chair) from his current employer, Lockheed-Martin. Also, it was agreed that Mr. Huber and Mr. Hollinger would discuss and decide on moving Mr. Dan Christensen (Mesaba Airlines) and Mr. Don Nicholson (Atlantic Coast Airlines) from HWG13 to HWG11. Mr. Huber commented that participation by the Wichita ACO in HWG13 was appropriate since they handle most of the small transports. Until the Wichita ACO provides a representative, Mr. Sadeghi (FAA) will support the group. Mr. Cotti commented that the HWG was concerned about the timeframe for sending their final report to ATSRAC being changed from October 2005 to January 2005.

Following Mr. Cotti’s comments, Mr. Hollinger asked why the date was changed. Mr. Huber responded, saying the target date for delivery of ATSRAC’s final products is typically tied to the date the FAA expects to publish a rule. However, at the moment, there is no plan to include the small transports in the current EAPAS rule. However, the sooner HWG13 completes their work, the sooner the product can get out to owner/operators for them to incorporate it into their maintenance program.

Mr. Ric Anderson commented that “the carrier is sometimes the owner/operator that is tied to 91.409(f3), which is a manufacturers’ recommended program. So, if it happens there, it automatically happens at the operators end. The only option that operators have is to develop their own and have them FAA approved.” Mr. Sobeck asked Mr. Cotti if he could supply the FAA with the number of operators that follow the 91.409 programs versus those that follow their own programs, which have been approved by the Administrator. Mr. Cotti said they would have to obtain this information via a survey, as the NBAA’s current database does not contain this information. He also stated that another way to view such data for part 135 is in relation to 135.411(a1), which allows the manufacturers maintenance program to be approved by the Administrator for airplanes under 9 passenger seats. Mr. Sobeck responded, reiterating that it would be helpful for the FAA to know the number of 91.409(f3) and (f4) programs in existence. Mr. Hollinger commented that the FAA could review their records to determine how many programs they have approved that are different from the manufacturer program. The results of

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this discussion was Mr. Cotti and Mr. Carl Story (Garrett Aviation) would work with Mr. Sobeck on obtaining the information.

Following this discussion, Mr. Hollinger returned to the discussion about the concern expressed earlier about the change in schedule. Mr. Huber responded, saying if there is a need to extend the schedule beyond January 2005, the FAA could work that out with the Committee at that time. However, the Committee should work to meet the January 2005 date.

### Vote on HWG 13 Work plan

The Committee voted unanimously to accept HWG13's work plan.

### **ATSRAC Intention Regarding EZAP Engine Wiring**

The group revisited discussions from previous ATSRAC meetings about engine wiring on the powerplant. Mr. Hollinger said a question about the ATSRAC's intent regarding these wires had come up in terms of whether the Committee's recommendations included them. He said one such discussion occurred at the January 2002 meeting after the GE Aircraft Engines presentation on the engine manufacturer's perspective on wiring. Mr. Hollinger said he recalled from that discussion that the Committee had agreed that this was no longer an issue. However, the ATSRAC's minutes and recommendations do not explicitly reference engine wiring as to whether they are or are not included for purposes of the EZAP. Mr. Ric Anderson commented that every zone in the airplane is covered in the zonal analysis, including the engine. Another participant said engine wiring is covered by part 33.

Mr. Hollinger noted that when WG1 did the surveys of aging airplanes, they did not survey the engine wiring. Additionally, he said he recalled the decision from the January 2002 discussions was maintenance of the engine wiring was included in the regular engine overall where the engine is disassembled and inspected in the engine shop. As a result, the Committee decided not to add it to their scope. He then asked the group for their recollection of the discussion and whether the intent was for EZAP to be applied to engine wiring. Mr. Anderson responded, saying engine wiring is already covered by specific tasks and it is not necessary to apply additional tasks to these wires. Mr. Hollinger clarified this statement, saying when the EZAP is done, on the engine, if no action is necessary (because the engine manufacturer tasks have already covered this area), the EZAP logic would not add any further tasks. In addition, it is the airframer that would do the zonal analysis as opposed to the engine manufacturer, so the engine manufacturer would not need to expend any additional resources.

Mr. Don Andersen (Boeing) said if the FAA were to exclude engines from the zonal analysis, Boeing would not do it. However, the FAA should also consider other wiring that should be excluded like those on the landing gear and in the fuel tank. Mr. Wayne Maxey (Boeing) followed with a comment that he would like to review the matter further before committing to include engine wiring in the EZAP tasks. Mr. Ric Anderson responded, saying it is a violation of the zonal concept to exclude a zone on the airplane. For example, MSG-3 does not exclude any zones. Mr. Huber added that it was not the intent to exclude the engine as a part of the EZAP.

Following further discussions, which included the viewpoint that engine wiring should be excluded because current analysis for them is adequate, Mr. Hollinger asked the group if engine wiring were to be included in the zonal analysis, would this be problematic? Mr. Mike Romanowski (AIA) answered, saying it depended on the cost involved.

After more discussions, the Committee agreed to table the issue and assign an action item to Boeing, Garrett Aviation, and AIA to obtain more information on this topic for discussion at the October 2003 ATSRAC meeting.

### **Future Meeting Dates and Locations**

The Committee agreed to the following meeting schedule:

July 10, 2003 Minutes— Approved 10/22/2003 (Docs 19792)

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<b>Meeting Dates</b>	<b>Recommended Locations</b>
October 22-23, 2003	Albuquerque, NM (1 ½ days)
January 21-22, 2004	Miami, FL (Airbus)
April 28-29, 2004	Langley, VA (NASA)
July 7-8, 2004	TBD

**Other Business:** None.

**Review of Open and New Action Items**

**Attendees:** Handout 7

**Adjourn:** 4:00 pm

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**Action Items**

1. Follow-up with Raine Pennanen about his participation in HWG11. (Bill Miller)
2. Send letter to Lockheed-Martin supporting Committee's request for Randy Boren to participate in HWG13. (Dave Harper)
3. Decide on moving Dan Christensen, Mesaba Airlines and Don Nicholson, Atlantic Coast Airlines from HWG13 to HWG11. (Kent Hollinger, Chuck Huber)
4. Obtain data for FAA regarding 91.409(f3)(f4). (Eli Cotti, Carl Story). Review databases and provide Eli Cotti with feedback. (Fred Sobeck)
5. Determine what data exists regarding problems with analysis of engine wiring and provide a report at the next ATSRAC meeting. (Chuck Huber)
6. Process waiver for the October 2003 ATSRAC meeting in Albuquerque. (Chuck Huber, Shirley Stroman)
7. Discuss change of dates for April 2004 meeting with Luci Crittenden. (Kent Hollinger)
8. Discuss with MSG-3 experts the issue of engine wiring to determine how it might be handled relevant to the EZAP. (Boeing, Garrett Aviation, AIA)

**Action Items Pending from April 2003**

1. (3) Solicit European Co-chair for HWG12. (Tony Heather, Chris Davies)\*
2. (5) Solicit U.S. Co-chair for HWG13. (Eli Cotti) \* **(Closed)**

\*Committee recommends selecting Co-chairs from among operators if possible.

**Action Items Pending from January 2003**

1. (3) Advise Committee how the FAA will harmonize the various aging rules with regard to compliance times. A response may not be needed depending upon the final structure of the proposed rule. (Chuck Huber)

**KEY DECISIONS AND CONCLUSIONS**

- The FAA announced that the HWG8 training AC and the HWG9 maintenance AC would be published as ATSRAC documents with request for comments. Several Committee members recommended that the HWG7 AC be published with the other two. The Committee voted unanimously in favor of this recommendation. The FAA agreed that the three ACs would be published as ATSRAC documents with request for comments.
- The Committee agreed that HWG11 and 13 should coordinate their work. Eli Cotti will be the coordinator for the two groups.
- The Committee voted unanimously to accept HWG12's and 13's work plans. HWG11 did not present a work plan because they have not been assigned specific tasks as yet.
- The Committee agreed to table the discussion about engine wiring and assigned an action item to Boeing, Garrett Aviation, and AIA to obtain more information on this topic for discussion at the next ATSRAC meeting.
- The Committee agreed on the following dates for future meetings:

<b>Meeting Dates</b>	<b>Recommended Locations</b>
October 22-23, 2003	Albuquerque, NM (1 ½ days)
January 21-22, 2004	Miami, FL (Airbus)
*April 28-29, 2004	Langley, VA (NASA)
July 7-8, 2004	TBD
October 20-21, 2004	TBD

\*The dates for April 2004 were changed from 4/21-22 to 4/28-29.