

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE

Date: April 24, 2003
Place: Boeing
Rosslyn, Virginia

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. Following Mr. Huber's statement, Mr. Hollinger welcomed the group, thanked Boeing for hosting the meeting, began introductions of attendees, then reviewed the agenda (Handout 1).

Statement by ATSRAC Chair

Mr. Hollinger made the following comments and asked Committee members to keep them in mind while considering the new tasks:

Considering the time devoted to developing, reviewing, accepting, and submitting recommendations to the FAA on the prior tasks, he said he was "very disappointed" in the "eleventh hour" discussions on Task 6. Following the Committee's acceptance of the task and submittal of their final report, some members choose to send letters to the FAA, not as minority opinions, but voicing disagreement with the Committee's actual acceptance of the task. While the basis for the disagreement is valid, these concerns should have been expressed 2 years ago when the tasks were originally assigned. To ensure this doesn't happen with the new tasks, Mr. Hollinger asked Committee members to keep in mind as they consider the new tasks that if they or their organization have valid concerns, they should voice them now or within the next few months so they can be addressed at the beginning of the process and before final products are produced. The Committee should also consider whether the tasks reflect the direction the Committee should pursue.

Approval of January 2003 Minutes (Handout 2)

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

Presentation and Discussion of New ATSRAC Tasking (Handout 3)

After giving the background of previous ATSRAC tasks—data collection, recommendations, and implementation—Mr. Huber summarized the objective of the presentation, then discussed each of the three new tasks. Task 11 (EAPAS Rulemaking Advisory) includes developing alternatives to proposed rulemaking, obtaining industry consensus on technical and economic data, and helping the FAA disposition comments. Mr. Huber stated these tasks would be required on an on-request basis. Therefore, the Working Group (WG) would not be able to develop a work plan until the FAA requested a specific task via a letter to the ATSRAC Chair.

Discussion: Task 11

In discussing the draft tasking statement, a participant raised a question about the October 2005 date referenced on page 5 of the draft tasking statement (Handout 4). Mr. Huber responded that for Task 11, the final recommendations would be due earlier than 2005. That is, within about 3 months of the FAA's tasking.

Mr. Kirk Thornburg questioned whether Task 11 might be used to coordinate the compliance times for the various aging rules so that the operators would have the best chance of making these rules cost effective. Mr. Huber responded, saying it was a great idea; however, he would be reluctant to include in the tasking anything to indicate the FAA was attempting to revise the

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compliance times for other rulemakings. Instead, he suggested the WG could develop alternatives that would allow EAPAS (Enhanced Airworthiness Program for Airplane Systems) compliance times to coincide with those of other aging rulemakings.

Following discussions about the general nature of the tasking statement, the Committee agreed to add a comment to the tasking to say the FAA would specifically task the ATSRAC as needed and would send the tasking to the Chair. The Chair in turn would submit the task to the Committee for a vote on whether to accept or reject the task.

Mr. Bob Swaim (NTSB) asked how the FAA planned to remain objective and meet the intent of the NTSB's original recommendations regarding aging aircraft when ATSRAC remained a part of the process. Mr. Huber responded, saying including ATSRAC in the FAA's rulemaking process is not an attempt to remove the FAA's responsibility in rulemaking. However, the FAA wants to make sure, especially in these uncertain economic times, that whatever we do is cost beneficial. Therefore, the FAA would like the assistance of the ATSRAC in this regard. The FAA, fully intends, however, to fulfill its responsibilities and make the hard decisions.

Vote on Task 11

Following the end of the discussions on Task 11, Mr. Hollinger called for a vote on acceptance of the task, whereby the Committee voted unanimously to accept the task with stated clarifications.

Presentation and Discussion of New ATSRAC Tasking (Handout 3)--Continued

Mr. Huber continued his presentation with an overview of Task 12 (EWIS R&D). He said the FAA had gained a lot from sharing its R&D program with the Committee and getting the Committee's feedback on R&D efforts to pursue. He thanked the members for their assistance and added that Task 12 would make the process of sharing information and obtaining feedback official. After these comments, Mr. Huber reviewed Task 12 as presented in Handout 3.

Discussion: Task 12

Mr. Rob Pappas (FAA) offered a point of clarification on the first statement/sub-task in the Task 12 slide of Handout 3. He said the sub-task involves developing a process to transfer technology and knowledge to industry. Mr. Huber added the other two statements/sub-tasks were more technology specific.

In an earlier remark, Mr. Dave Johnson (DOD) said the R&D products should include ones from the Department of Defense. Mr. Ken Elias (ALPA) agreed with his comment, saying the current statement was limiting. Mr. Pappas responded that the FAA, Air Force, and NASA were working closely in the area of electrical systems, so including DOD R&D products would make sense. As a result, the Committee agreed to revise the tasking statement to include R&D products from FAA "and others." Mr. Huber commented he did not want to see this become a marketing effort with the FAA's R&D products getting lost in a focus on other R&D products. Mr. Hollinger said the Co-chairs could be responsible for ensuring that this does not happen. Mr. Huber added the FAA Representative could also help in this regard.

Mr. William Schultz (GAMA) stated he did not want to see ATSRAC become a "clearing house" for such highly theoretical endeavors. He said the need for many of the issues discussed has not been clearly established. He added he is not sure if industry has the resources to "rake leaves" to look for opportunities regarding these R&D products. Mr. Pappas responded, saying the intent of the task is to look at the products from the R&D efforts and assess how they can best be implemented and the technology transferred to the aviation community.

After further discussions, concerns were raised about the appropriateness of including rulemaking in this task. The Committee agreed to revise the title and other areas of the task to remove the term "rulemaking" and replace it with "technology transfer." Mr. Huber commented he did not want to make a direct correlation between technology transfer and rulemaking as rulemaking is

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performance based, and the FAA would not mandate any specific technology. The Committee also agreed to clarify in the tasking statement that the WG would not just review all R&D products that may be available, but would "screen and review" such products for appropriateness to transfer to the aviation community.

Ms. Sarah Knife (GEAE) voiced disagreement with any mandate to transfer technology and recommended removing the wording "developing effective strategies" from the tasking statement. Mr. Huber responded, saying it is not the FAA's intent to mandate such action but to give information to industry on the availability of technologies. Mr. Hollinger added there was no mention in the statement about "developing effective strategies" and by earlier removing the term "rulemaking," Ms. Knife's concerns had already been addressed. Ms. Luci Crittenden (NASA) suggested the title of the task be changed to "...Technology Transfer." Mr. Pappas added the intent is to have the WG facilitate getting information to the aviation community and letting them decide how, or if, they should use it.

Vote on Task 12

The Committee agreed to accept the task with agreed-upon changes in a vote of 12 for, 0 against, and 2 abstaining.

Presentation and Discussion of New ATSRAC Tasking (Handout 3)-Continued

Mr. Huber continued with a discussion of Task 13. He noted this task is an outgrowth of work by WG 10 (Small Transport Airplane Working Group). In addition, the task was modified from what is presented in Handout 3 as a result of discussions in the April 23, 2003, regulators' meeting. The revised task would include a review of existing small transport airplane manufacturers' wiring inspection procedures; development of criteria for enhanced procedures to inspect, clean, reduce combustible material, reduce potential ignition sources (e.g., cracks in wiring, chafing near structures); maintain the electrical wiring interconnection systems (EWIS) on small transport airplanes; and, recommend compliance means to adopt the criteria and incorporate the enhanced wiring inspection procedures into maintenance programs. The purpose of the tasking is to provide alternative means for small transport airplanes to comply with applicable EAPAS regulations.

Discussion Task 13

Mr. Elias expressed concern that manufacturer inspection procedures may not be released to the WG because manufacturers consider this information proprietary. Therefore, if manufacturers choose not to release these procedures, the WG's review of their wiring inspection procedures would be limited. For example, Boeing considers this information proprietary. Also, WG 6 requested the Instructions for Continued Airworthiness from the manufacturers, but they did not release them. Other participants commented the design specifications are an internal document, and the methodology used by manufacturers to determine their maintenance schedules and inspections is proprietary. In addition, Mr. Eli Cotti (NBAA) said the wiring inspection procedures are included in maintenance manuals and are not proprietary. However, engineering-related information (e.g., specifications, wire separation information, analytical processes) is proprietary. Mr. Elias said he wanted to reiterate, "the only data that is necessary for release is the wiring inspection procedures contained within the maintenance manuals." To expedite the work of WG 13, he suggested ATSRAC draft a letter to the manufacturers requesting release of the necessary data. In addition, he asked that the minutes of the April 24 ATSRAC meeting reflect ALPA's concern and industry's response (per discussions during the ATSRAC meeting) about the release of manufacturer-related data WG 13 will need to accomplish their task.

Mr. Swaim commented that he did not see in Task 13 procedures to address actual problems that occur on airplanes. He said the NTSB was interested in knowing how the FAA would resolve the differences in procedures and actual findings from airplanes. Mr. Huber responded, saying the results from WG 10 must be addressed in item 2 (i.e., "Identify and develop criteria for upgrading/developing enhanced procedures...") of Task 13. In further discussions about why practice doesn't match procedures, Mr. Hollinger said the method to bring procedures in line with

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practice could be found in the Task 8 training recommendations. Mr. Swaim followed with a comment, saying SDRs in respect to a continuous review process were in limbo. Mr. Elias asked if Mr. Swaim would suggest how Task 13 might be changed to address his concerns. Mr. Swaim answered, saying he couldn't give specific feedback, as he could not become a part of the ATSRAC process; however, the idea is to close the loop on what's coming back into the continuous review of procedures. Mr. Fred Sobeck (FAA) said such a "closed loop" existed for part 121 operations but not for part 91 operations. In reference to small transport airplanes in part 121 operations, whether certified under part 23 or part 25, operational rules require a continuous feedback mechanism in maintenance programs. So, if differences in actual occurrences and procedures were found, they must be corrected. However, for part 91 operations, the operators typically use what is given them by the manufacturers to make changes to their maintenance programs. As a result, the manufacturers must be involved in service history, and changes to work cards, maintenance programs, and manuals must come from them, not the operators.

Additional discussions on this topic centered on CASS as a continuous feedback system. Mr. Hollinger asked if Task 13 needed to include specific wording about a feedback mechanism. Mr. Swaim responded, saying his concerns had been satisfied with the explanation about the reference in Task 13 to WG10's results. However, he noted, although there are feedback systems, those systems are broken. In response to a question concerning how these systems are broken, Mr. Swaim responded, saying the data are not being obtained off the "shop floor." Mr. Hollinger commented that the chafing wiring Mr. Swaim had referenced in his comments is not the type of wiring event SDRs would capture. However, it would be in the operators' reliability program.

Vote on Task 13

The Committee voted unanimously to accept Task 13 with agreed-upon changes.

Statement by Northwest Airlines Representative

Mr. Thornburg commented he believed the FAA had addressed the maintenance concerns discussed at the January 2003 ATSRAC meeting with the retasking of ATSRAC. He said he wanted to applaud the FAA for allowing ATSRAC to continue to be a part of the process by providing input.

Discussion: Should ATSRAC Recommend Additional Tasks?

Following Mr. Thornburg's statement, Mr. Hollinger reminded the group that in addition to the FAA's taskings, Committee members could ask the FAA to assign added tasks to them. He asked the Committee to send him, within in the next few weeks or months, any ideas they may have for additional tasks they believe the FAA should assign to them.

Presentation and Discussion of New ATSRAC Tasking (Handout 3)—Continued

After, Mr. Hollinger's comments, Mr. Huber finished presentation of Handout 3, announcing the FAA Representatives for the three WGs, noting Aircraft Certification Service and Flight Standards' support of the taskings, and discussing follow-on actions to complete the tasking process.

Discussion: Alternative Ways to Accomplish Tasks

Mr. Hollinger opened the floor for discussions on whether the Committee agreed with the standard method of proceeding with the tasks. That is, the formation of harmonization working groups. He explained other possible options for accomplishing the tasks, to include forming ad-hoc groups or having Committee members do the work themselves.

Ms. Knife commented as follows: She believes there is a part of industry that was unaware of ATSRAC activities. This includes the WGs' activities, which were released to the public only after their products were completed. This was too late to give input and relates to why members of industry are now objecting to the Task 6

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products. It's difficult to get all the stakeholders together, especially in today's environment of limited resources. The challenge for Committee members is how they are going to make industry aware of their activities in time to get industry's input. To address this issue, the Committee may want to consider holding electronic meetings and emphasizing to today's attendees that they should share the information with their organizations.

Mr. Elias commented the WGs are closed to the public; however, participation in them is open to whoever may want to apply. Also, the WGs do use e-mail to accomplish quite a bit of their work. Mr. Hollinger noted the WGs must brief the full Committee regularly on their activities, so it is the ATSRAC meetings where the public can learn about what the WGs are doing and possibly influence their activities. Mr. Glapa added ATSRAC did a lot to inform the public of their activities. Ms. Knife reiterated her earlier comments, adding a lot more could have been done to have members coordinate the Committee's activities with their organizations. Mr. Hollinger said he agreed it is critical for members to coordinate ATSRAC activities with their organizations and asked them to keep this in mind as the Committee moves forward with the new taskings. Mr. Schultz said the group that did not participate in prior ATSRAC proceedings is the large engine manufacturers. In addition, the transport category, part 29 rotorcraft certificate holders operating in part 121 did not participate.

Mr. Hollinger returned to his earlier topic, saying with the lessons learned by the prior discussions, he wanted the group to discuss any alternatives they may have to the standard method of achieving the new tasks. After the Committee agreed to proceed with formation of the harmonization working groups, Mr. Hollinger began discussions on the new WGs.

Selection of Co-Chairs for New Harmonization Working Groups

The Committee agreed that Co-chairs should be selected by May 23, 2003.

WG11	WG12	WG13
<ol style="list-style-type: none"> 1. Committee agrees Co-chairs should be selected from among operators. 2. Mr. Thornburg will consult with ATA and Northwest Airlines to solicit a U.S. Co-chair. 3. Mr. Patrick Glapa will consult with European airlines and Airbus to solicit a European Co-chair. 	<ol style="list-style-type: none"> 1. Committee supports the nomination of Mr. Kent Hollinger as the U.S. Co-chair. 2. Mr. Tony Heather (JAA/CAA-UK) will consult with Mr. Chris Davies (AECMA) to solicit a European Co-Chair. 	<ol style="list-style-type: none"> 1. Committee agrees Co-chairs should be selected from among small aircraft operators. 2. Mr. Cotti will solicit a U.S. Co-chair. 3. Mr. Dominique Bellon (Dassault Aviation) will solicit a European Co-chair.

Wire Indenter Presentation and Discussion (Handout 5)

As covered in Handout 4, Mr. Rob Pappas (FAA) discussed materials tested, test methods, and test results related to material testing research and indenter equipment modifications for determining aging characteristics of wires in aircraft.

AIA/GAMA Recommendation on ATSRAC WG 6 Product (Handout 6)

Mr. Huber gave an overview of the AIA/GAMA recommendations contained in their March 12, 2003, letter on WG 6 and discussed the FAA's intent to respond to the letter. Mr. Huber said the FAA is reviewing the letter and is assessing the potential impact it may have on rulemaking efforts. The intent is for the FAA to respond to the recommendations prior to issuing a Notice of Proposed Rulemaking or during the comment period following such rulemaking. If the decision is to change the recommendations ATSRAC already approved, Mr. Huber said he would want to include this under Task 11 to develop a harmonized alternative based on the AIA/GAMA letter.

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He added the FAA takes seriously comments from industry such as those presented in the letter and the FAA has a responsibility to respond. The issue for the FAA is how to respond and what effect it will have on the prior ATSRAC recommendations. Following further discussions, the Committee agreed that Mr. Hollinger would forward a copy of the letter to the Committee and the WG6 Co-chairs for their review and comment within 2 weeks of receipt. Mr. Hollinger will collect the individual comments and send each to the FAA.

EWIS Maintenance Program Enhancements (Handout 7)

In response to the prior commitment to discuss the EZAP (Enhanced Zonal Analysis Procedure) compliance schedule, Mr. Huber presented an overview of the EWIS maintenance program enhancements covered in Handout 7. This included a summary of two options the FAA is considering for rulemaking. Mr. Huber said these two options resulted from the FAA's concern that the cost-benefit analysis may not support all ATSRAC recommendations. As a result, the FAA is considering non-regulatory alternatives, which may include parts 121, 145, and 147 training, maintenance documentation enhancements, EZAP, inclusion of EZAP in maintenance programs, performance of EZAP, and EZAP development for existing STCs.

NOTE: The term "voluntary" in Handout 7 should be "alternative."

Discussion: EWIS Maintenance Program

In response to Mr. Huber's indication that the type certificate (TC) holders may be required to develop an EZAP that would not be mandated for operators, Mr. Hollinger questioned whether TC holders would be open to developing something for operators if operators were not required to implement it. Mr. Wayne Maxey (Boeing) responded, saying before undergoing such development, manufacturers would consult with their operators. If the operators did not agree to implement the EZAP, the manufacturers would resist developing it. Other participants said some operators would and some would not elect to implement a non-mandated program. However, it would at least force operators to assess the program and either implement it or not.

In follow-on discussions Mr. Hollinger summarized the two options, saying essentially the difference is to either mandate the 121 training or the EZAP but not both. He asked the group for comments on which alternative, training or EZAP, they believed would be most effective. Mr. Ric Anderson (ATA) said if EZAP is mandated, industry must train. He believes training is the more beneficial approach to achieving a cultural change. Mr. Thornburg agreed with Mr. Anderson's comments, adding the change in definition of GVI and DI, regarding wiring, gives much of the same benefits as EZAP, except EZAP may allow an earlier look at wiring compared to the regular inspection process. Mr. Heather responded that EZAP also offers the benefit of cleaning. Mr. Nick Drivas (Airtran Airways) supported mandated training, especially for mechanics. He indicated training and cleaning would help increase the "health" of wiring. He also said the one time cleaning and inspection would be helpful by "undoing lack of proper training."

In response to this discussion, Mr. Heather said he wanted to share the below information about human factors' statistics.

There are three ways to mitigate the risk of a perceived problem: make a design change, which achieves an 85 percent success rate; administer the problem (e.g., develop procedures), which achieves a 50 percent success rate; or do training alone, which achieves a 15 percent success rate.

Mr. Thornburg disagreed, commenting he believed training would achieve a 90-95 percent success rate. Mr. Heather responded, saying the 15 percent rate is an average.

Future Meeting Dates and Locations

The Committee agreed to the following meeting schedule:

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Meeting Dates	Recommended Locations
July 10, 2003	Washington, DC Area
October 22-23, 2003	Albuquerque, NM (Sandia)
January 21-22, 2004	Miami, FL (Airbus)
*April 21-22, 2004	Langley, VA (NASA)
July 7-8, 2004	TBD
October 20-21, 2004	TBD

*If only one date is needed, it will be April 22.

Mr. Howard Aylesworth (AIA) agreed to seek approval to hold the July 10, 2003 meeting at AIA in Washington, DC area (Rosslyn, Virginia).

Other Business

Statement by JAA Representative

In response to the ATSRAC's questions concerning the JAA's role in the new WGs, Mr. Vic Card made the following written statement on behalf of the JAA:

"The JAA plans for harmonisation by moving any FAA rulemaking into the European arena, are not yet finalised. At present the JAA is extremely busy preparing to transfer most of its activities to the new European Aviation Safety Agency (EASA), which assumes all the European Union's (EU) rulemaking and product certification responsibilities from September 2003. The JAA has no independent ageing systems activities, and its policy is best described as "trying to harmonise with the FAA actions wherever practicable". Since no mature NPRM proposals are available at this stage it is unlikely that JAA could complete any JAR NPA action by September. In that case, JAA will plan to leave all ageing systems rulemaking for EASA to deal with. The JAA is now developing an Inventory of current and future technical airworthiness rulemaking activities. This inventory will therefore document the work done up to now.

Despite the possible delay, there would be advantages in this approach since EASA can adopt changes to Certification Specifications (The successors of JAR-25 and other Technical Airworthiness Codes), whereas the JAA can only recommend action. In any case, it is not likely that the JAA would want to initiate any action on rulemaking pending the outcome of the FAA deliberations about "alternatives to rulemaking". It would not want to process any European rules, only to find that the FAA had decided to follow a voluntary compliance approach." (sic)

Review of Open and New Action Items

All action items from the January 2003 ATSRAC meeting are closed, except items 2, 3, 4, and 8, which were carried over to the April 2003 list.

Attendees: Handout 8

Adjourn: 4:15 pm

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Action Items

1. Discuss and decide on a U.S. Co-Chair for WG 11 by May 23. (Kirk Thornburg, Nick Drivas, Ric Anderson) *
 2. Solicit European Co-chair for WG 11 by May 23. (Patrick Glapa) *
 3. Solicit European Co-chair for WG 12 by May 23. (Tony Heather, Chris Davies)
 4. Solicit U.S. Co-chair for WG 13 by May 23. (Eli Cotti) *
 5. Solicit European Co-chair for WG 13 by May 23. (Dominique Bellon)*
 6. Forward a copy of the Federal Register notice for new ATSRAC tasks to Kent Hollinger by May 9, 2003. (Shirley Stroman)
 7. Send Kent Hollinger an electronic copy of AIA/GAMA letter for distribution to the Committee and WG 6 Co-chairs. (Bill Schultz)
 8. Forward comments on AIA/GAMA letter to Kent Hollinger within two weeks of receipt. (Committee members)
 9. Confirm AIA will host July 10, 2003, ATSRAC meeting in Washington, DC area. (Howard Aylesworth)
 10. Confirm Sandia (Albuquerque, NM) is available for October 22-23, 2003, ATSRAC meeting. (Rob Pappas)
- *Committee recommends selecting Co-chairs from among operators if possible.

Action Items Pending from January 2003

1. (2) Provide Committee members, per request, with a copy of Hector Hernandez' presentation, "Lubricant Effectiveness Study for Corrosion Protection." (Kent Hollinger)
2. (3) Provide Committee members with FAA's response to the Committee's letter outlining alternative compliance approaches to EZAP implementation. (Chuck Huber)

NOTE: A response may not be needed depending upon the final structure of the proposed rule.

3. (4) Advise Committee how the FAA will harmonize the various aging rules with regard to compliance times. (Chuck Huber)

NOTE: A response may not be needed depending upon the final structure of the proposed rule.

4. (8) Provide pictures and actual test materials by July 10, 2003, of damage to wiring WG 8 could use to better meet their requirements. (Rob Pappas)

KEY DECISIONS AND CONCLUSIONS

- The Committee voted unanimously to accept Task 11 (EAPAS Rulemaking Advisory HWG).
- In a vote of 12 for, 0 against, and 2 abstaining, the Committee voted to accept Task 12 (EWIS R&D Technology Transfer HWG).
- The Committee voted unanimously to accept Task 13 (Small Transport Airplane Enhanced Wiring Inspection HWG).
- The Committee agreed on the following regarding the working groups:
 1. Select Co-chairs for WGs 11 and 13 from among operators if possible.
 2. Kent Hollinger as the U.S. nominee for Co-chair of WG 12.
- The Committee agreed on the following dates for future meetings:

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**If only one day is needed for this meeting, it will be April 22.