Aviation Rulemaking Advisory Committee (ARAC)
Transport Airplane and Engine (TAE) Issues Area

Meeting Minutes

Date: October 17, 2007
Time: 9:00 a.m. PST
Location: FAA NWR Office
Renton, WA

Call to Order/Administrative Reporting

Mr. Craig Bolt (TAE Assistant Chair) called the meeting to order at 9:00 a.m. Mr. Mike Kaszycki (TAE Assistant Executive Director) read the Federal Advisory Committee Act statement. Mr. Bolt began the introductions (see sign-in sheet **[handout #1]**).

A review of the agenda **[handout #2]** and the action items from the last regularly scheduled TAE meeting was completed:

Item	March 22, 2007 TAEIG Meeting Action Items	Status
1.	Suzanne Masterson to investigate the two proposed advisory circulars on different subjects with the same designation of AC 120-YY.	Completed
2.	Craig Bolt to send TAEIG copy of FAA presentation on Advanced Displays Steering Group	Completed
3.	Suzanne Masterson to determine if ad hoc meeting date of April 17 to vote on AAWG report is acceptable-Complete, meeting occurred	Completed
4.	Mike Kaszycki to contact Bob Ganley regarding new part 35 critical parts status	Completed
5.	Mike Kaszycki will contact Avionics HWG with direction on process for resolving comments on AC 25-11	Completed
6.	FAA to provide guidance to Avionics HWG on the scope of phase 2 activities	Closed during meeting
7.	TAEIG members need to provide comments on proposal to have acoustic insulation WG within one week	Closed*
	Ongoing actions from March 2006 meeting	
1.	Mike Kaszycki will discuss with Tony Fazio the potential of FAA becoming “lead” on the AAWG activities with EASA making use of the FAA’s work.	Closed^
2.	FAA to send a letter to EASA describing the FAA's position on future FAA/EASA harmonization policy with regard to avionics.	Closed^

* No comments were received.
^ These activities were deemed closed based on TAEIG consensus.

Mr. Bolt presented the minutes from the previous two TAEIG meetings. The minutes had been previously distributed via email to members of the group for comment. He asked if there were any additional comments that members felt needed to be entered into those minutes. As there were no additional comments or edits to be made, the minutes were then approved by the TAEIG.

Design for Security HWG Report

The Design for Security HWG report was delivered by co-chairs Mr. Gale Meek (Cessna Aircraft), via teleconference and Mr. Jeff Gardlin (FAA) **[handout #3]**. Mr. Gardlin began the presentation by summarizing the activities of the Design for Security Harmonization Working Group relative to its work in addressing the technical comments from Boeing and ATA on the NPRM. He reminded all that the original tasking of the DFSHWG allowed the working group to assist in the resolution of comments received in the rulemaking process. Therefore certain comments had been presented to the group under those circumstances, and the public had been informed via Federal Register notice of this activity.

In his briefing to the TAEIG, Mr. Gardlin stated that ARAC had experienced great success in reconvening the DFSHWG, which included all but a few of the original members. The DFSHWG group had met from August 21-23, 2007. Subject matter had been distributed to each of the group members in advance of the meeting in the hopes that one meeting would be enough to resolve those issues. Mr. Gardlin then outlined all the items that were discussed by the group. The major issues dealt with were comments related to; structural deflections, flight and dispatch considerations for smoke protection, system separation, and object size for interior search.

With respect to structural deflections, Mr. Gardlin stated that the issue was mostly related to the cargo fire protection system and included concerns related to transient availability of some protective aspects of this system, as well as certain dispatch requirements. Mr. Gardlin stated that the most controversial issue concerned the design criteria. He stated that affected manufacturers were looking for specific defined criteria that would allow them to show compliance. Mr. Meek interjected to emphasize that this was a particular challenge for the DFSHWG.

Mr. Gardlin stated that most issues were addressed in the preamble to the final rule, which called for changes to five advisory circulars and a recommend rule change for cargo fire protection—primarily to define deflections as being outward and limited to the aircraft's outer skin. In addressing flight and dispatch considerations, Mr. Gardlin stated that clarifications were made in defining issues, but also agreed that whenever a capability was required, that it must be available and for the required period of time. Mr. Kaszycki pointed out to Mr. Gardlin that if the time condition was specified in the respective AC then it created an issue of regulatory concern. Mr. Gardlin responded that the issue was still being worked on. With respect to comments on system separation, Mr. Kaszycki inquired as to how many comments were received relative to this issue, and who made those comments. Mr. Gardlin said that comments had come from both Boeing and Airbus, both of whom were members of the DFSHWG. In commenting on flight and dispatch considerations, Mr. Gardlin clarified that there was no intent to dictate dispatch considerations as

this must be done under operational requirements, but that the most critical dispatch issues were being considered in the rule. Mr. Doug Kihm (Boeing) asked if FAA flight standards (AFS) was being consulted on this issue, to which Mr. Gardlin replied that they were.

In responding to Mr. Kaszycki, Mr. Gardlin clarified that AC 25-9A was related to smoke detection, penetration and and evacuation. In reviewing the subject of object size for interior search, Mr. Gardlin stated that it was the most difficult issue the group dealt with, and that the group had worked closely with the Transportation Security Administration (TSA) on this issue. He further stated that the group's focus for interior search was to consider ease of search, and not to focus on a search for a specific object, though the planned object of search was given a dimension of 20 cubic inches. Mr. Kihm stated that Boeing still had some unresolved issues relative to the search criteria and wished to make some additional input, but he needed to close on the specific details.

Mr. Kaszycki thanked all the members of the DFSHWG for the expeditious action in reconvening and presenting the group's recommendations to the TAEIG. He stated that he felt the FAA needed to continue to move forward with the rulemaking and asked Mr. Bolt what measures were available from ARAC to facilitate that. While acknowledging that Boeing still had some questions, Mr. Kaszycki advised that the FAA would, for the meantime, proceed with rulemaking efforts. He informed Mr. Kihm that Boeing was welcomed to introduce their additional comments. Mr. Bolt then asked if there were any additional questions from the TAEIG and proceeded to ask for a vote from the group on the submission of the dispositioned comments for inclusion into the final rule preamble and into advisory material. All participating members, except for Boeing, voted in favor of submitting the ARAC recommendation to the FAA. The representative from Aerospace Industries Association (AIA) abstained from voting. Also Mr. Bolt shared an email received from Mr. Rolf Greiner (Airbus) which stated that Airbus was in support of the recommendation reached by the DFSHWG. Mr. Bolt said that the next ARAC Executive Committee (EXCOM) meeting would be in December 2007, at which he would report to the Director of the Office of Rulemaking some specifics about the DFSHWG report to this TAEIG meeting.

FAA Report

Ms. Suzanne Masterson (FAA) reviewed the FAA report **[handout #4]** and commented on current FAA rulemaking projects. She began with an overview of part 25 rules stating that since March 2007, there had been two part 25 final rules issued as well as two part 25 NPRM's. Mr. Kaszycki stated that he soon expected to see issuance of the EAPAS rule (Enhanced Airworthiness Programs for Aging Systems), as well as the associated advisory materials for that rule. There had also been two part 33/35 final rules issued, both in August 2007 and both had been ARAC projects, and four part 33/35 NPRM's had been issued. Additionally there were a total of seven other final rules and four NPRM's in various stages of coordination. The non-rulemaking project status since March consisted of four part 25, and four part 33/35 final policies and AC's issued. Draft policies and AC's issued consisted of three part 25, and four part 33/35 items.

Mr. Kaszycki briefed the TAEIG on some of the other projects that the FAA was working on. He discussed § 25.1322 (flight crew warning and alerting systems) and said it was an ARAC product that was linked to the CAST safety enhancement. Therefore, he said ARAC had

fulfilled its obligation to CAST when the TAEIG submitted its recommendation to the FAA. Mr. Kaszycki said that amendment 25-87 (pressurization and humidity) was another TAEIG project that the FAA was working on; he said that there had been much coordination with the FAA's medical department and that progress was being made. Also, he stated that as a result of the 2001 Airbus-300 accident in New York and the resulting NTSB recommendations, § 25.1583 would be updated to reflect the new understanding of maneuvering speed. He acknowledged that industry had been proactive in voluntarily taking steps in that area so there would not be a need to make it an industry project.

Mr. Kaszycki further stated that research for SLD (Supercooled Liquid Droplets) was hampered by the apparent lack of resources in NASA's effort, and that much input was still needed for this project. In response to a question from Mr. Kihm regarding a certain point of contact at NASA, Mr. Kaszycki said that the research and development issues at NASA were beyond that individual's control. He pointed out that despite accidents involving both part 23 and part 25 airplanes and an NTSB recommendation, this issue has not progressed very far. He said it is necessary for the FAA to find a means for researching and acquiring the necessary data to develop this rulemaking.

He discussed the human factors rule which was lead by EASA and referred to it as 25.1302. He said that due to EASA's lead, the FAA will soon be able to do an expedited regulatory evaluation which he said should result in a "simple category-one fast track." Mr. Kaszycki clarified to Mr. Kihm that following EASA's lead on this rule would minimize the work for FAA economists which could result in an NPRM being published by 2008.

Ms. Ranee Carr (Aerospace Industries Association) said that there seemed to be many separate initiatives with respect to icing, and she asked if it was possible that there might be duplications in efforts throughout industry regarding these icing activities. Mr. Kaszycki stated that he was uncertain about some of the other initiatives that may have existed. He then recapped that the fnal rule for Performance and handling in icing conditions had recently published, and that Supercooled Ice Droplets was a very controversial project particularly for large airplane manufacturers. He said that the FAA was seeking NASA's assistance in research that would help the FAA to better develop methods of compliance and to determine applicability. Mr. Kaszycki suggested to Ms. Carr that the FAA would be willing to engage in talks with the AIA as a means of determining where each party might be regarding the different icing initiatives.

Mr. Kaszycki informed Ms. Carr that the FAA would be hosting the annual Icing Review on November 7, 2007, and then clarified that it was an internal FAA event. Mr. Kihm asked if one product of these meetings was the annual safety letters the FAA sent to air carriers related to safe winter time operations. Mr. Kaszycki said that that task was a flight standards responsibility, and that the "Icing Review" was more "strategic," and was designed to inform FAA personnel of the many icing related issues in which the FAA was engaged.

Mr. Ray Holanda NADA (National Air Disaster Alliance) asked about the status of the Fuel Tank Flammability Rule, and Mr. Kaszycki responded that he could only say that it was in "OST and OMB review." In responding to a question from Mr. Kihm about time periods for these reviews, Mr. Kaszycki said that the time allotted for these reviews were respectively 30 and 90 days for OST and OMB. Mr. Kihm indicated that industry often makes business

decisions based on events materializing according to FAA date estimates, and that the accuracy of those dates is important.

Airplane-level Safety Analysis WG (ASAWG) Report

Mr. Roger Knepper (Airbus) co-chair of the ASAWG presented his briefing **[handout #5]** via teleconference and webex. He indicated that the ASAWG had completed a total of five meetings up to this point and that all work was on schedule and that there had been good participation within the membership. He indicated that Tasks 1 and 2 had been completed and that the group had begun work on Task 3. In reviewing Task 2 requirements, Mr. Knepper explained that the group in applying specific risks, took a particular condition such as a latent failure or an active failure for example, and applied criteria from 25.1309 to determine whether or not that particular condition would render an aircraft "one failure away from catastrophe." The work for Task 3 will be determining adequacy of existing and proposed standards and evaluation of a need for changes if necessary. This will necessitate an evaluation of current regulation, guidance material and industry practices for adequacy, appropriateness and applicability. This will also include the need to identify fundamental issues, select the best practice of all currently available practices and further provide recommendations for improvements.

Mr. Knepper said that the next meeting of the ASAWG would be January 8-10, 2008 in Savannah, Georgia and that he and Mr. Ed Wineman (Gulfstream), would prepare a "generic Specific Risk presentation" in advance of that meeting which will be distributed to all working group members to be used go collect information from industry and other authorities relative to this Task 3 initiative Mr. Bolt then thanked Mr. Knepper for the presentation and asked if there were any questions from the TAEIG. Mr. Kaszycki also thanked Mr. Knepper for the presentation and added that Task 3 is more controversial than Tasks 1 and 2. He indicated that the FAA had made known a lack of participation from some members of the ASAWG. Those members were identified as Airline Pilot Association (ALPA), Bombardier, Pratt & Whitney, and FedEx. Mr. Kaszycki also indicated that participation was lacking from FAA flight standards (AFS). Mr. Joe White (ATA) indicated that there had been some "turnover" in pilot membership, but that he would express the need for participation in ASAWG from that group. Mr. Knepper stated that there had been some retirements elsewhere within the ASWG. Mr. Kaszycki added that there had also been some retirements within FAA flight standards, all of which had possibly impacted participation. He said that there would be a meeting the end of November, at which he would bring the issue to the attention of FAA management.

EASA Report

There was no formal EASA Report, nor was there a representative from that agency.

ARAC Executive Committee Report

Mr. Bolt delivered the Executive Committee (EXCOM) Report. Mr. Bolt said that the next meeting would be in Washington, DC on December 5, 2007. He said the main topics would be a follow on discussion regarding the restructuring of EXCOM and the "sunsetting" of certain inactive issues group. Since the number of taskings given to EXCOM has decreased over time, it has resulted in a corresponding decrease in the number of issue groups with taskings. He stated

that changes are currently being drafted by Gerri Robinson (FAA Office of Rulemaking) which will reflect the proposed changes to ARAC. The changes will reduce the number of issues groups while retaining provisions to cover all existing technical areas. This would require the retention of a subject matter expert of an issues group to remain on the EXCOM and thus permit a fast reconstitution of that group if a tasking need was to arise. Additionally, some taskings would be managed directly by EXCOM and not fall under any particular issues group. Mr. Bolt cited "Aviation Maintenance Technician Schools," a tasking which was issued in July 2007 as one of those tasks. He said that the only other item of any significance for the December meeting would be a report to EXCOM on the disposition of comments from the Design for Security HWG. He stated that the Director, Office of Rulemaking had requested a separate briefing on that topic.

Mr. Kaszycki asked Mr. Bolt how an individual would be selected to lead one of these "independent working" groups that is not associated with an issues group, and Mr. Bolt responded that by maintaining subject matter experts on the EXCOM, it would make that process a matter of selecting the appropriate SME to lead. Mr. Bolt in responding to a question about the number of issues groups and working groups, pointed out the ARAC website could provide that information.

Mr. Kihm asked why the ETOPS (Extended Overwater Operations) rule was not reported as part of the FAA report. Mr. Kaszycki responded that though the ETOPS rule and the associated AC were being worked, this rulemaking effort was lead by Flight Standards so this rule doesn't show up on the part 25/33/35 rulemaking report.

Propeller Harmonization Working Group (PHWG) Report

Mr. Richard Edinger (Hartzell Propellers), chair of the PHWG presented the briefing**[handout #6**] for this group via teleconference. Mr. Edinger stated that the IPHWG had been tasked in December 2006 with its responsibilities and pointed out that unlike previous part 35 taskings, this group was now tasked to assist with reviewing and dispositioning any public comments related to rulemaking associated as a result of this. He reviewed the membership of the group and then noted that the group felt it was important to include EASA and Dowty, and that they had been able to do so via email and telephone. He further stated that Transport Canada and Brazil had declined to participate in the working group. Mr. Edinger said that the group had completed its first meeting, which had been held a few months earlier in Chicago. The team had been able to engage in some team building efforts, decide on some important definitions, and was able to review questionnaires that had been previously sent out to individual team members.

When asked by Mr. Bolt to provide an example of an "attribute," Mr. Edinger said it was defined in the CS-P, and that it could be a dimension, characteristic, feature, or even a process. Mr. Edinger also said that the IPHWG had completed a proposed rule, § 35.16, which Mr. Edinger stated was very similar to EASA's CS-P and had begun to develop an outline of key items of several work plans. He said no further action was completed at the meeting due to time constraints. Mr. Edinger stated that following the Chicago meeting, the team had been able to arrange a teleconference in which EASA had participated, and the working group was able to clarify what "their next steps were". Additionally phone calls were made to EASA, Dowty, and MT Propeller, in an attempt to gain consensus on the interpretation of CS-P advisory material. Mr. Edinger said there remain concerns and some confusion on how to implement this proposed

rule. He felt the challenge for the PHWG will be in producing a rule and advisory material that is clearly understood and applied with consistency. He said that work was currently in progress. Mr. Edinger said that the next meeting for the PHWG was scheduled for November 7-8, 2007 and that the group expected to provide "deliverables" by the end of 2008.

Mr. Kihm asked if the word "Hazardous" in the term Hazardous Propeller Effect needed to be harmonized with respect to its use in other FAA advisory material. Mr. Edinger said that as used in the team, its meaning was very clear. He further stated that the term was commonly used in the original part 35 NPRM and that he felt it was being agreed to in general principle between FAA and EASA. Mr. Edinger said that issues such as significant overspeed, excessive drag, release of a blade or major portion of the propeller, and movement of propeller below flight idle were all in the context of Hazardous Propeller Effects.

Mr. Kaszycki asked if the assessment at the part 35 level could create confusion as to how analysis would then be accomplished at the part 23 or part 25 level. Mr. Edinger said that there should not be any confusion. Mr. Kaszycki asked if the PHWG definition of "Hazardous" was such that a propeller installed on a part 25 airplane would render that airplane as un-certifiable. In clarifying Mr. Edinger's response, Mr. Kaszycki suggested that Mr. Edinger's was saying that what might be considered as "just hazardous" for a part 35 certification level could potentially be a "catastrophic effect" at the part 25 level depending on the specific airplane. Mr. Edinger acknowledged that this was correct. Mr. Turnberg added that in this case, the specific catastrophic level would be determined by the propeller manufacturer, and not the airplane manufacturer.

Mr. Kaszycki summarized his concerns to Mr. Turnberg and Mr. Edinger by stating that he realized much of the work the PHWG was performing was associated with equipment that was never intended to be utilized on any part 25 airplane, nevertheless, he emphasized that he was concerned about not understanding if there was a methodology that would segregate part 23 propellers from finding their way on to part 25 airplanes.

Mr. Bolt stated that he had been to Cologne, Germany in October 2007, and had spoken with Mr. Pascal Lair (EASA), who had expressed that he was very happy to be able to informally participate in PHWG issues by telephone, and that he thought the group was doing good work. Mr. Lair had also indicated that he felt that EASA's advisory material perhaps needed more clarification and that he hoped completed work from the PHWG could be incorporated into EASA material to assist in that clarification. Mr. Edinger expressed the desire to continue to work informally with Mr. Lair in these initiatives to maintain consistency between EASA's and FAA's regulatory and advisory materials.

Ice Protection Harmonization Working Group (IPHWG) Report

Mr. Jim Hoppins (Cessna Aircraft Company) reviewed the IPHWG presentation **[handout #7]** via teleconference. In his presentation to the TAEIG Mr. Hoppins stated that all IPHWG Tasks were closed except for the Phase IV review of Task 2. Also, he stated that since there have been no provisions for the necessary funding, and the fact that there had been personnel changes, there has been no further progress on that initiative. Additionally he stated that with respect to Appendix X, the previous IPHWG recommendation still stands and no further activities are

planned. Teleconference meetings will be coordinated as necessary to continue work on the Phase IV review of Task 2.

Engine Harmonization Working Group (EHWG) Report

Mr. Bob Mazzawy delivered the briefing for the EHWG **[handout #8]** stating that the group had most recently met in Montreal at the National Research Council (Canada) (NRC) to proceed with work relative to High Ice Water Content (HIWC) environments. That Task, which consists of four sections, includes NASA sponsored flight tests. These flight tests are designed to characterize the environment for the threat that will be proposed in interim Appendix D. According to Mr. Mazzawy, the purpose of this task is to provide the fundamental data to industry so that certification test requirements can be met.

Mr. Kihm stated that there appeared to be much reliance on NASA to accomplish this work, but also that questions remain as to whether or not NASA is being funded to do this work. Ms. Jean Mason stated that she believed that NASA had a query to engine companies to get support for the project via retrofit. She said that the NASA stand on retrofit had been approved, but that there was no internal funding. Mr. Kaszycki asked Ms. Mason how long the retrofit would take if funding was available and she stated that it could take approximately to 2010. Mr. Kihm stated that his original question was more in reference to SLD (Supercooled Liquid Droplets) but that it appeared that any available funding was being used to fund mixed phase icing.
Ms. Mason then asked the TAEIG to confirm that the items presented on slide 2 in the EHWG presentation was accurate in depicting the desired scope of work for the EHWG to pursue and if this work was in fact sanctioned under the Task 2, Phase IV Review. Mr. Bolt agreed that it was, and added that he was unaware that engine companies had been asked for support as was indicated to be the case in this presentation to the TAEIG. He stated that he would need a list of all who had been contacted by NASA so that a follow up could be conducted. Ms. Mason said that she would get that list and provide it to Mr. Bolt.

Transport Canada (TC) Report

There was no formal Transport Canada Report – Mr. Eric Lucas (Transport Canada) sent Mr. Bolt an email during this meeting which stated that he would not be presenting a report as he was involved in a meeting regarding the restructuring of Transport Canada.

Airworthiness Assurance Working Group Report

Dr. Rao Varanasi (Boeing), co-chair of the AAWG presented the report **[handout #9]**. He stated that there had been two changes in membership, those being from United Air Lines (UAL) and Japan Air Lines (JAL). The group had most recently met in Memphis in September 2007, and had been hosted by the group's co-chair from FedEx. Mr. Varanasi emphasized that much like previous meetings, there had been no representation from EASA. He added that the next AAWG meeting would be sometime in the middle of November 2007, and was planned for Seattle.

Mr. Varanasi reviewed the taskings for the AAWG stating that the only task for the group was the Aging Aircraft Safety Final Rule (AASFR). There were two phases of that tasking. All aspects of Phase I of that task were completed in April 2007 and Phase 2 is scheduled for completion by December 2009. For Phase 2, Task 4 "Model Specific Program," he said that the AAWG is responsible to ensure that Structural Task Groups (STG's) are convened for all

models. This involves defining model specific material and making that available to operators. Mr. Varanasi stated that Airbus is slightly ahead of Boeing with respect to the status of STG's, as they are already operational and working on compliance requirements relative to the Aging Aircrafy Safety Final Rule. Boeing was scheduled to convene its STG's beginning October 2007. Also, the AAWG planned to meet in November to discuss STG's for other Type Certificate Holders. Mr. Varanasi said that STG's are also applicable to out of production aircraft. He said that the AAWG is responsible for providing oversight to the STGs, and providing support as necessary.

Mr. Kaszycki then addressed the Task 3 report and the recommendation that was submitted to the FAA. He stated that some recent issues had arisen concerning the Special Certification Reviews and he was not sure as to the applicability with respect to the work of the AAWG.

Mr. Varanasi stated that this provision was covered in the AAWG report and he then read an excerpt from the report which specified the disposition of new certifications versus those alterations that existed prior to the implementation of the WFD rule. According to rule language, existing alterations were to be divided into special categories which would then be subjected to FAA Special Certification Reviews (SCR). This SCR would determine whether or not WFD does exist. He stated that the entire aircraft would be inspected with respect to Damage tolerance in accordance with the operational rule (clarified by Mr. Sippel as the AASR).

Mr. Kaszycki asked if the AAWG report provided a tool to assess the various STC's and to determine which of those were critical. Mr. Varanasi said he felt it did. He and Mr. Sippel (FAA) agreed that the AAWG had looked at approximately 632 STC's (alterations), and had determined that approximately 14 of those needed to be further evaluated for WFD.
A further discussion ensued about the use of the term SCR (Special Certification Review), with Mr. Kaszycki stating that SCR's were normally reserved for very serious and typically unsafe conditions. He used a fatal accident involving a Lear jet that had crashed after experiencing pressurization problems as an example of when a SCR may be appropriately applied. He said that the word "assessment" rather than "SCR" might be a more applicable term. Mr. Kaszycki also suggested that he felt that the AAWG may have been experiencing some difficulties in attempting to reach solutions to certain provisions of Task 3.

Mr. Kaszycki said that both Boeing and Airbus had agreed to do assessments of all the alterations on their airplanes but he did not think that the "commitment" had been provided in the Task 3 Report. He clarified to Mr. Sippel that though he understood these would not be considered as repairs, he was concerned that he had not seen alterations addressed in the report. Mr. Varanasi said he thought that information was included in the compliance report.

Also Mr. Kaszycki stated that there were expectations within the FAA that the Task 3 report would include some specific guidance on how to assess alterations and also that there were some questions about how clear it would be for the FAA to use the assessment tool. Additionally, questions had arisen as to why STC's considered to be problematic were not further addressed by the AAWG. Mr. Varanasi responded that he believed that that action may have been beyond the scope of the original tasking statement. However, he said that in accordance with the tasking the AAWG had actually provided some tools which he felt would enable third parties to come to an assessment of WFD. Mr. Varanasi said that a simplified tool, though somewhat conservative,

had actually been provided in the report to accomplish that provision. He further stated that he did not feel it was a tool that Boeing or Airbus would necessarily use.

Mr. Varanasi said that Boeing did have an FAA approved methodology for WFD assessment and that "he presumed that other OEM's" did as well." He suggested that both tools were more conservative than the "simplified" tool "identified for STC holders and other operators." Mr. Varanasi emphasized however, that this was his personal point of view.
Mr. Kaszycki asked Mr. Varanasi if he thought that assessing STC's as a component of Task 3 was part of the Tasking, and Mr. Varanasi stated that he did not believe it was. Mr. Kaszycki stated that though the FAA did approve the Task 3 report, a lot of questions were still being asked of him. He said that he thinks there should be a meeting specific to the report as there is some confusion, and varying opinions within the FAA as to what should be done with the report. Mr. Varanasi said that he would "highly support" such a meeting. Mr. Kaszycki said that since the report was already approved by the TAEIG, all actions resulting from a meeting would be brought back to the TAEIG, which would keep everything within the public domain.

Mr. Kaszycki said that he would take an action to set up a meeting to clarify the intent of the Task 3 report. In responding to question from Mr. Kihm regarding attendance to that meeting, Mr. Kaszycki stated that he thought it should include himself, some FAA personnel, the chair and possibly co chair of the AAWG, and some additional members of the AAWG.

Mr. Varanasi remarked that it might have been more advantageous had the Damage Tolerance (DT) rule been preceded by the Widespread Fatigue Damage (WFD) rule, as WFD is an inherent component of DT.

Avionics Harmonization Working Group (AHWG)

Mr. Clark Badie (Honeywell) began his discussion on behalf of the AHWG. He said that he did not have a formal report to present to the TAEIG because the group had no activities in progress. Mr. Kaszycki apprised Mr. Badie that anything related to the AHWG had been covered earlier in the morning during the review of the action items. He relayed to Mr. Badie that there had been a large discussion within the FAA regarding overlap situations within the avionics arena. He further stated that there would be a formal tasking that would be included under the original tasking to the AHWG which would be to focus on Heads Up Display (HUD) and weather radar related subjects. He said that the FAA did not want AHWG work to include Enhanced Vision Systems (EVS) and Synthetic Vision Systems (SVS) as those systems are being advanced under RTCA.

Mr. Badie said that he agreed with that principle. But he wanted to know how work that was performed in an RTCA committee would become translated into advisory material for guidance on airworthiness. He also wished to know if there was anything within the RTCA work that would conflict with work already produced in the new AC 25-11.

Mr. Kaszycki advised that the FAA would be supporting the RTCA group and would be monitoring to ensure that no conflicting advisory materials are produced. Mr. Kaszycki noted that he was aware that many of the same individuals were participating in separate research groups and he wished to ensure that the same work wasn't being done twice. He further stated that he felt wording from AC 25-11 could be adopted, with reference made reference to the

material from RTCA. He asked Mr. Badie if there were any other systems that he wished to discussed at this point, and Mr. Badie said there was not.
Mr. Kaszycki stated that the forthcoming tasking would be considered a clarification to the original tasking rather than a formal implementation of a Phase 2.

In response to a question from Mr. Kihm about how the FAA adopts RTCA recommendations, Mr. Kaszycki said these recommendations were usually adopted as TSO's and AC's. With respect to AC 25-11, he said his preference would be to indicate in the notice that the material was a product from an RTCA recommendation and then it can be incorporated into the AC. Once incorporated into the AC, he said the FAA gained control of the material regardless of any future disposition of an RTCA. In response to a question from Mr. Kihm about how all this new information relative to the advisory material would be distributed, Mr. Kaszycki said it was possible that inclusion of HUD, weather radar into that advisory material would possibly render it as 25-11B but he was not sure. He further stated that there might be a period of waiting for the RTCA to provide information relative to SVS/EVS, but at this point he is not certain what the specific actions will be. Mr. Kihm inquired as to whether it was the CAST Safety Enhancement that required that the HUD be incorporated into AC 25-11, and Mr. Kaszycki responded that he believed it was the original AHWG that wished to include several appendices, including HUD, as well as a list of several other subjects.

Mr. Kihm asked if the schedule for a possible AC25-11B would be determined by FAA or if it would be by industry, and Mr. Kaszycki said that the TAEIG and Mr. Badie would have to work together to produce a realistic schedule. He further stated that there was not a CAST Safety Enhancement attached to this particular schedule therefore there was not a specific schedule as yet. Mr. Badie indicated that work from the AHWG could be expected to take approximately another six months, but the work timeframe for RTCA remained the unknown element. Mr. Kaszycki advised that if RTCA had not completed its work by the time the AHWG had completed its work, then a decision would need to be made on the way forward.

Mr. Kaszycki also indicated that he desired participation from EASA in these initiatives with the AHWG and it was then mentioned that EASA personnel had equally expressed interest in supporting this initiative.

Other Business

There was no other business to be discussed.

Item	October 17, 2007 TAEIG Meeting Action Items
1.	FAA to prepare letter to Avionics HWG clarifying work remaining under current tasking. Draft letter to be circulated amongst TAEIG before transmittal to Avionics HWG- Mike Kaszycki
2.	Doug Kihm to provide Craig Bolt with Boeing concerns about the DSHWG report to include in TAEIG transmittal letter of the report to the FAA. - Complete
3.	Craig Bolt to follow up with engine companies that have been approached by NASA to gain support for NASA funding High Ice Water Content (HIWC) work - Complete
4.	FAA representatives and AAWG representatives to meet in order to clarify the intent

	of the task 3 report that was TAEIG approved in April 2007

Future TAEIG Meetings

The next regularly scheduled TAEIG meeting is planned for February 6, 2008 in Arlington, Virginia, with a subsequent meeting planned for September 24, 2008 in Seattle, Washington.

Adjourned at 3:00 p.m.

Public Notification

The *Federal Register* published a notice of this meeting on September 21, 2007 **[handout #10]**.

Approval

I certify the minutes are accurate.

Craig R. Bolt
Assistant Chair, ARAC

AVIATION RULEMAKING ADVISORY COMMITTEE

TRANSPORT AIRPLANES AND ENGINE ISSUES
Sign-In Sheet

October 17, 2007

NAME	MEMBER	NONMEMBER	ORGANIZATION/AFFILIATION	E-Mail Address	Telephone No.	Fax No.
Ray Holanda	x		NADA/F	Rahol@att.net	440-572-1327	
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Robert Duffer			FAA	robert.duffer@faa.gov	425-227-2722	
LORAN HAWORTH		X	FAA	loran.haworth@faa.gov	425 227-1133	

Transport Airplane and Engine Issues Group Meeting
FAA-NWR Office
1601 Lind Ave SW
Renton, WA 98057

Agenda

DRESS: BUSINESS CASUAL

Wednesday, October 17, 2007 – ***Call in number: (202) 366-3920 Pass Code: 1986***

9:00	Call to Order, Reading of the Procedures Statement, Review of Agenda, Meeting Logistics, Review of Action Items, Items of Interest, Review of Minutes from previous meeting	C. Bolt/M. Kaszycki
9:15	Design for Security	J. Gardlin
9:45	FAA Report	M. Kaszycki
10:15	Airplane-level Safety Analysis WG Report • Closure of Task 2 and Status of Task 3	R. Knepper
10:45	EASA Report	TBD
11:00	Excom Report	C. Bolt
11:15	Propeller Harmonization WG	R. Edinger
11:45	Ice Protection HWG Report	J. Hoppins
12:15	***-- LUNCH --***	
1:15	Transport Canada Report	E. Lucas
1:30	Airworthiness Assurance HWG Report	R. Varanasi
2:00	Avionics HWG	C. Badie
2:30	Any Other Business	All
2:45	Action Item Review	C. Bolt
3:00	***-- ADJOURN --***	

Design for Security HWG Report

Gale Meek/Jeff Gardlin

Transport Airplane and Engine Interest Group October 17, 2007

Harmonization Group Tasked with Comment Disposition

- Specific Comments that were:
  - Not considered originally or,
  - Were considered but no resolution reached

    And
  - Were significant in understanding compliance requirements
- Original tasking provided for comment disposition

HWG Actions

- Specific comments distributed to HWG members for consideration
- Strategy to address comments through correspondence and one meeting
- HWG met in Seattle August 21-23, 2007

Comment Areas

- Consideration of structural deflections for system integrity
- Flight/dispatch regimes under which smoke protection capability is not required
- System separation
  - requirements in relation to other regulations (i.e., §§ 25.729(f) and 25.903(d))
  - Definition of the separation distance measurement
- Definition of object size for interior search

Structural Deflections

- Primarily affects cargo fire protection system
- Also affects flight critical systems if separation impracticable
- Original intent to “design in” flexibility

Flight and Dispatch Considerations for Smoke Protection

- Affects both passenger cabin smoke evacuation and flightdeck smoke penetration
- Involves transient flight conditions where capabilities may not be available
- Involves consideration of dispatch [e.g., MMEL relief]

System Separation

- Question of conflicts with requirements for rotor burst and tire burst
- Request to define the measurement method, i.e., what is ‘separated’

Object size for Interior Search

- Design for Search most controversial issue
- TAEIG did not make a recommendation on this aspect of NPRM
- Airframe mfrs. requested definition of an ‘object’ for the purposes of showing compliance

Resolutions

- Most comments were addressed with discussion in preamble
- One rule change—cargo fire protection
- Changes to 5 ACs (cargo fire protection, passenger cabin smoke protection, flightdeck smoke protection, System separation and Interior Search)

Cargo Fire Protection

- Rule Modified to limit deflections to distance to outer skin
- Considers direction of deflection based on outward explosive energy
- Considers point load most appropriate
- Does not mandate space around the system

Flight and Dispatch Considerations for Smoke Protection

- Group agreed that airplane needs *capability* to protect from smoke but,
  - Phase of flight
  - Transient system configurations

  Mean that capability is not necessarily instantaneously available
- Agreed on time to achieve that capability from transient flight conditions
- Agreed on being able to maintain the capability once properly configured

System Separation

- Group reviewed compliance issues with §§ 25.729(f) and 25.903(d)
  - Could not find instance where compliance § 25.795 would cause conflict
  - Concluded that rule already accounts for it by ‘impracticable’ provision
- Distance Measurement readily agreed to be such that sphere passes between systems, i.e., to the edge of the system

Flight and Dispatch Considerations for Smoke Protection

- Neither rule nor ACs can dictate dispatch conditions
- ACs recommend:
  - Fully operational systems for cabin smoke protection
  - Dispatchable configurations for flightdeck smoke protection
  - This is consistent with AC 25-9A

Object size for Interior Search

- Most difficult issue
- Search criteria and dangerous objects are sensitive
- Group agreed to define standard shapes of constant volume
- Shapes presented in AC
- All shapes 20 in^3

HWG Conclusions

- Meeting was very productive
- Group stayed focused on the areas tasked and away from the remainder of comments
- All tasked areas were successfully addressed
- Group recommends adoption

October 2007
FAA Status Update

Transport Airplane and Engine Issues Group

Federal Aviation Administration

Presented to: TAEIG

By: Mike Kaszycki, Manager, Transport Standards Staff

Date: 10/17/07

October 2007 TAEIG Meeting

Topics:

- Rulemaking Project Status
- Non-Rulemaking Project Status

October 2007 TAEIG Meeting

Rulemaking Project Status: (since March 2007)

- Part 25 related Final Rules:
  - Airplane Performance and Handling Qualities in Icing Conditions*
    - Final Rule issued on 07/25/2007
  - High-Intensity Radiated Fields (HIRF) Protection for Aircraft Electrical and Electronic Systems
    - HQ Project: Final Rule issued on 07/30/2007

- Part 25 related Notices of Proposed Rulemakings (NPRM):
  - Activation of Ice Protection*
    - NPRM issued on 04/11/07; Comment period closed 07/25/07
  - Special Requirements for Private Use Transport Category Airplanes
    - NPRM issued on 07/03/07; Comment period closed 10/11/07

* *ARAC project*

October 2007 TAEIG Meeting

Rulemaking Project Status: (since March 2007)

continued

- Part 33/35 related FRs:
  - Aircraft Engine Standards for Engine Life-Limited Parts*
    - Final Rule issued 8/27/2007
  - Safety Analysis Requirements for Turbine Engines*
    - Final Rule issued 8/27/2007

* *ARAC project*

October 2007 TAEIG Meeting

Rulemaking Project Status: (since March 2007)

continued

- Part 33/35 related NPRMs:
  - Engine Control System Requirements*
    - NPRM issued 3/26/07; comment period closed 7/10/07
  - Propellers*
    - NPRM issued 3/26/07; first comment period closed 6/11/07; comment period reopened until 8/6/07
  - Rotorcraft Turbine Engines One-Engine-Inoperative (OEI) Ratings, Type Certification Standards*
    - NPRM issued 4/13/07; comment period closed 8/2/07
  - Aircraft Engine Standards for Pressurized Engine Static Parts (§ 33.64)*
    - NPRM issued 8/30/07; comments due 12/5/07

* *ARAC project*

October 2007 TAEIG Meeting

Rulemaking Project Status: (since March 2007)

continued

- FRs in OMB/OST:
  - 2 part 25 projects
- FRs in Headquarters (HQ) for coordination:
  - 1 part 25 project
  - 1 part 33 project
- FRs in Headquarters (HQ) for regulatory evaluation development:
  - 1 part 25 project
- FRs in development:
  - 2 part 25 projects
- FRs in directorate coordination
  - None

October 2007 TAEIG Meeting

Rulemaking Project Status: (since March 2007) *continued*

- NPRMs in OST/OMB for coordination:
  - None
- NPRMs in HQ for coordination:
  - 2 Part 33 projects
- NPRMs in Directorate for coordination:
  - 1 Part 25 project
  - 1 Part 33 project
- New Tasking under development:
  - None

October 2007 TAEIG Meeting

Non-Rulemaking Project Status: (since March 2007) *continued*

- Part 25 Final Policy and Advisory Circulars (AC) issued:
  - AC 25-25, Performance and Handling Characteristics in the Icing Conditions Specified in Part 25, Appendix C.
    - Issued 09/10/2007
  - AC 20-158, The Certification of aircraft Electrical and Electronic Systems for Operation in the High-Intensity Radiated Fields (HIRF) Environment. (HQ)
    - HQ AC: Issued 07/30/2007
  - AC 25-11A, Electronic Flight Deck Displays
    - Issued 06/21/2007
  - Policy statement ANM-111-06-001, Modifications Which Impact Airplane Exterior Lighting
    - Issued 05/14/2007

October 2007 TAEIG Meeting

Non-Rulemaking Project Status: (since March 2007) *continued*

- Part 33/35 Final Policy and ACs issued:
  - AC 33.63-1 Turbine Engine Vibration
    - Issued 07/25/2007
  - ANE-2007-35.23-1, Policy for Electronic Propeller Control Systems, §§ 35.21 and 35.23
    - Issued 8/22/07
  - ANE-2006-33.7-3A, FAA Certification Policy for Turbine Engine Lubricating Oils Qualified to AS5780
    - Issued 4/20/07
  - ANE-2006-33.7-4-1, Diesel (Compression Ignition) Engine Certification Policy (§ 33.7)
    - Issued 9/6/07

October 2007 TAEIG Meeting

Non-Rulemaking Project Status: (since March 2007)
continued

- Part 25 Draft ACs issued:
  - AC 25.856-2X: Installation of Thermal Acoustic Insulation for Burnthrough Protection
    - Comments due 11/22/07
  - AC 25-1419-2X, Compliance With The Ice Protection Requirements of §§ 25.1419(e), (f), (g), and (h)
    - Comment period closed 7/25/2007

- Part 25 Draft Policy issued:
  - Certification for Flammability of Lightweight Seat Cushions
    - Comment period closed 8/8/2007

* *ARAC project*

October 2007 TAEIG Meeting

Non-Rulemaking Project Status: (since March 2007)
continued

- Part 33/35 Draft Policy and ACs issued:
  - AC 33.70-Y, Engine Life-limited Parts Requirements
    - Comments due 11/30/07
  - AC 33.15-X, Manufacturing Processes for Premium Quality Nickel Alloy for Engine Rotating Parts
    - Comments due 11/30/07
  - AC 33.70-X, Damage Tolerance Of Hole Features In High-energy Turbine Engine Rotors
    - Comments due 11/30/07
  - AC 33-X, Comparative Analysis and Test Methods for Parts Manufacturer Approval of Turbine Engine and Auxiliary Power Unit Parts
    - Comments due 1/26/08

ASAWG Report to TAEIG

Specific Risk Tasking

October 17, 2007

Airplane Safety Analysis Working Group

- Statement of Issue
- Specific Risk Tasking
- ASAWG Membership
- ASAWG Schedule
- ASAWG Status and Way Forward

Statement of Issue

- Previous ARAC harmonization working groups produced varying recommendations to handle specific risk
- Aircraft are becoming increasingly integrated where individual system functional boundaries are not well defined
- Inconsistencies in the safety analysis across systems could result in the use of nonstandard system safety assessments across various critical systems making it hard to properly evaluated at the aircraft level

SPECIFIC RISK TASKING

- FAA Notice on 3/21/06 - ARAC Tasking to TAEIG
  - Task 1 - Develop definition(s) and examples
  - Task 2 - Review of existing material and identify industry application
  - Task 3 - Determine adequacy of existing and proposed regulatory and guidance material
  - Task 4 - Develop recommendations for rulemaking and guidance material

SPECIFIC RISK TASKING

- ASAWG Formulation on 7/25/06 – TAEIG Tasking to ASAWG
  - Co-Chairs
    - Roger Knepper – Airbus
    - Ed Wineman - Gulfstream
  - 18 Total members
    - 7 Airframers
    - 5 Suppliers
    - 4 Regulatory
    - 2 Users
  - Over 32 SMEs identified with half currently active in covering both operations and design

Schedule

TASK	DESCRIPTION	DATE
1	Develop definition of specific risk and catalog examples of its application	NOV 2006
2	Identify relevant requirements, guidance and recommendations related to specific risk and its use	JUN 2007
3	Determine adequacy of the existing/proposed standards and if a change is warranted	MAR 2008
4	Prepare a report identifying recommendations	SEP 2008

ASAWG Status

Task#1 *(Develop definition of specific risk and catalog examples of its application)*

- Completed Nov 2006 according to planning
- ASAWG Report (Task#1 section) provided to TAEIG (Mar 2007)

ASAWG Status

Task#2 *(Identify relevant requirements, guidance and recommendations related to specific risk and its use)*

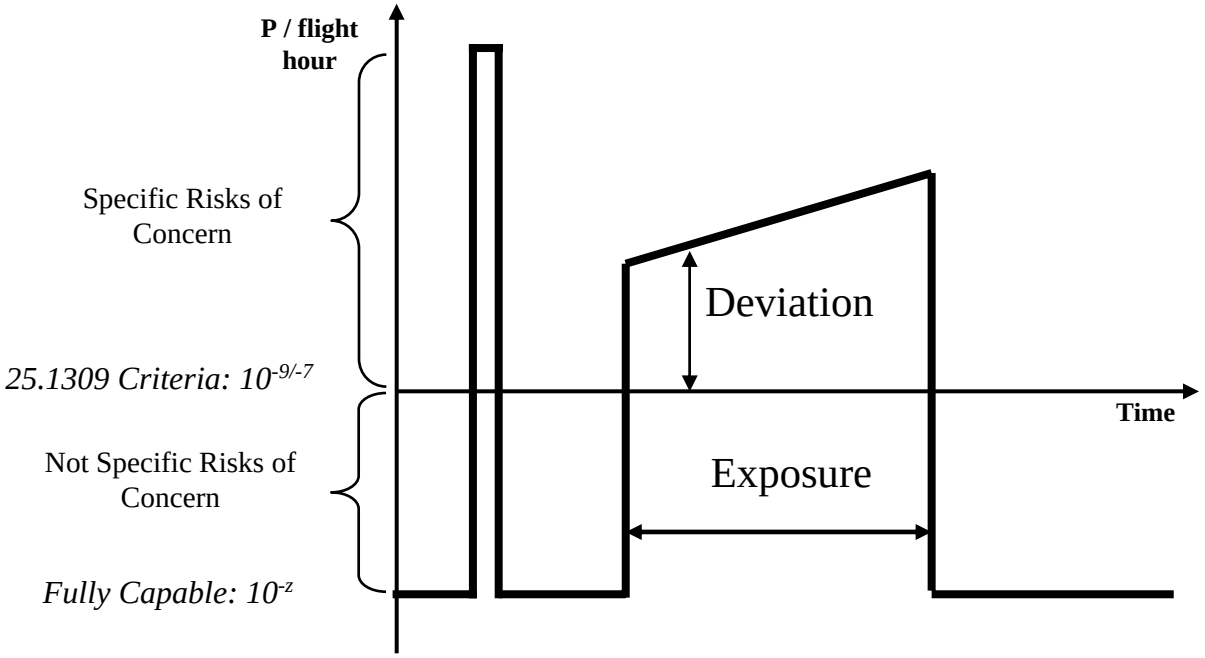
- Completed Jun 2007 according to planning
- ASAWG Report (Task#2 section) provided to TAEIG (Oct 2007)

Specific Risk *is the* ***"The risk on a given flight due to a particular condition".***

The ***Specific Risks of Concern*** *are when the airplane is* ***one failure away from a catastrophe****, or when the* ***risk is greater than the average probability criteria*** *provided in AC/AMJ 25.1309 Arsenal for* ***HAZ*** *and* ***CAT*** *failure conditions, on a given flight due to a particular condition.*

ASAWG Status

Task#2 *(Identify relevant requirements, guidance and recommendations related to specific risk and its use)*



ASAWG Status

Task#3 *(Determine adequacy of the existing/proposed standards and if a change is warranted)*

- Started Jun 2007 according to planning
- Task groups are guided by questions designed to help team members assess the following aspects:
  - ✓ Are the regulations/guidances/industry practices
    - ➢ Adequate?
    - ➢ Appropriate?
    - ➢ Applicable across systems?

ASAWG Status

Task#3 *(Determine adequacy of the existing/proposed standards and if a change is warranted)*

- Identify “Fundamental issue(s)”
  - ✓“Fundamental issues” are the key solutions/approaches of the regulation/guidance to mitigate the Specific Risk
  - ✓Examples are limit exposure time, take into account at failure condition classification, prevent single failures to CAT

- For each “fundamental issue(s)”:
  - ✓Summarize current practice
    - ➢Summary of task#2 results
  - ✓Select best practice from list of current practices
    - ➢Supported by task#3 questions/answers
  - ✓Provide recommendation
    - ➢Can be different to best practice

ASAWG Status

Task#3 *(Determine adequacy of the existing/proposed standards and if a change is warranted)*

Meeting#5 (TLS, France on 9th to 11th Oct 2007)

DRAFT outcomes:

- Categories of "Fundamental issue(s)" are:
  - ✓ One failure way from catastrophe
  - ✓ Hazard classification considering intensifying factors
    - ➢ e.g. maximum flight time
  - ✓ Limit residual risk after a failure
    - ➢ e.g. 1/1000 criteria as recommended by ARAC Flight Control HWG
  - ✓ Criteria for latency
    - ➢ e.g. criteria for when latency is not a concern
  - ✓ Effects of aging and wear

ASAWG Status

Task#3 *(Determine adequacy of the existing/proposed standards and if a change is warranted)*

Task Group Integrated Summary Table

Fundamental Issues	**Current Practices** (Summary of Columns 1, 2 and 4 of the Task 2 Worksheet.)				**Best Practice**	**Recommended Practice**
Minimum number of key solutions / approaches of the regulation / guidance to mitigate specific risk.	***Rule 1***	***Rule 2***	***Rule 3***	***Rule 4***	Derived from list to the left using the "Adequate" and "Appropriate" assessments of Table 3.	Derived from or new direction from the "Current Practices". List of potential exclusions.

Is used for task#3

ASAWG Status

Task#3 *(Determine adequacy of the existing/proposed standards and if a change is warranted)*

Way forward up to Meeting#6 (Jan 08, Savannah)

- Establish “fundamental issues”, best practices and recommendations
- Prepare generic Specific Risk presentation for consistent understanding across industry/authorities
- Get feedback on “fundamental issues”, best practices and recommendations from industry/authorities

Questions?

Propeller Harmonization Working Group for Critical Parts

TAEIG Status Report

October 17, 2007

Federal Register Announcement

- Formation of the Propeller Harmonization Working Group for Critical Parts
  - Federal Register document FR Doc E6-21651 dated December 20, 2006 (Volume 71, Number 244), pages 76422-76423.

Defined Task

- The Propeller Harmonization Working Group (PHWG) will:
- Review the background and intent of relevant existing requirements, existing guidance material, related ARAC recommendations on part 35, and the current EASA requirements for propeller critical parts integrity.
- Develop a report containing recommendations for rulemaking or guidance material, or both, and explain the rationale and safety benefits for each proposed change. The report will define a standardized approach for applying specific propeller critical parts integrity in the appropriate circumstances. The FAA will define the report format to ensure the report contains the necessary information for developing a Notice of Proposed Rulemaking (NPRM), Advisory Circular (AC), or both.
- Make recommendations to ARAC for acceptance and submission to the FAA.
- If a NPRM or proposed AC is published for public comment as a result of the recommendations from this tasking, the FAA may ask ARAC to review the comments received and provide a recommendation for disposition of comments for each issue.

Working Group Members

Richard Edinger	Hartzell Propeller (chair)
Jay Turnberg	FAA, Engine/Propeller Directorate
Stuart Browning	Hamilton Sundstrand
Tom Knopp	McCauley Propeller
Gerd Mühlbauer	MT-Propeller
Chuck Swanson	Sensenich Propeller
Michael Trott	Dowty (monitor by phone or e-mail)
Pascal Lair	EASA (monitor by phone or e-mail)
Declined participation:	Transport Canada, Brazilian ANAC

Work Plan

Task	Estimated Completion Date
Team members become familiar with the CS-P rule and Advisory Materials and provide comments.	Complete
FAA (Turnberg) consolidates comments into one document and submits them back to the group.	Complete
Team members discuss the comments, thus gaining a common understanding of the subject matter and relevant issues.	Completed July 18-19, 2007
The team drafts and agrees on the definition of a Propeller Critical Part and Attributes.	First draft completed July 18-19, 2007
The team drafts and agrees on a Critical Part rule.	First draft completed July 18-19, 2007
The team drafts and agrees on the proposed advisory material.	Basic elements drafted TBD; approx mid-year 2008
The team drafts and agrees on a report that contains the recommendations and explains the rationale and safety benefits and submits to ARAC.	TBD; approx end of year 2008

Reference Materials Studied

- Part 35 NPRM
  - from a previous harmonization task
- Part 33 “engine life limited parts” NPRM
- CS-P and CS-E regulations and advisory

CS-P Reference Rule

- **CS-P 160 Propeller Critical Parts Integrity (See AMC P 160)**

- The integrity of the Propeller Critical Parts identified under CS-P 150 must be established by:

- (a) An **Engineering Plan**, the execution of which establishes and maintains that the combinations of loads, material properties, environmental influences and operating conditions, including the effects of parts influencing these parameters, are sufficiently well known or predictable, by validated analysis, test or service experience, to ensure Propeller Critical Parts have a high level of integrity throughout their service life. Any Approved Life must be published as required in CS-P 40(b).

- (b) A **Manufacturing Plan** which identifies the specific manufacturing constraints necessary to consistently produce Propeller Critical Parts with the Attributes required by the Engineering Plan.

- (c) A **Service Management Plan** which defines in-service processes for maintenance and repair of Propeller Critical Parts which will maintain Attributes consistent with those required by the Engineering Plan. These processes shall become part of the Instructions for Continued Airworthiness as required by CS-P 40.

CS-P Reference Definitions

- Propeller Critical Part
  - A part that relies upon meeting the prescribed integrity specifications of CS-P 160 to avoid its Primary Failure which could result in a Hazardous Propeller Effect.
- Primary Failure
  - A failure of a part which is not the result of the prior failure of another part or system.

Working Group Status

- Accomplishments
- Activities since 1st meeting
- Task for 2nd meeting

Accomplishments

- Reviewed and discussed the reference materials
- Discussed responses to a pre-meeting questionnaire
  - To gauge the diversity of opinions
  - To develop a consensus for fundamental issues
- Developed a “preferred initial position” for fundamental issues
- The group confirmed the CS-P was an acceptable model, and then:
  - Drafted a definition of a “Propeller Critical Part”
  - Drafted a definition of an “Attribute” and a “Critical Attribute”
  - Drafted a proposed Part 35.16 rule
  - Began an outline of the “major elements” of an Engineering Plan, a Manufacturing Plan, and a Service Management Plan

Activities Since 1st Meeting

- Post-meeting telephone conference
  - Clarified next steps and assignments
  - Achieved EASA participation
- Confirmed need to clarify interpretation of CS-P advisory material
  - Subsequent calls made separately with EASA, Dowty, and MT Propeller

Activities Since 1st Meeting

- To test the usefulness and clarity of the draft rule and advisory
  - one or more member is drafting an implementation plan using the team's work-product

Task for 2nd meeting

- Review and revise as necessary
  - the draft rule and definitions
  - the draft “major elements” of the three plans
- Review a more fully drafted advisory
  - based on the previous meeting, and
  - knowledge gained while clarifying interpretation of the CS-P advisory
- Next meeting scheduled Nov 7-8, 2007

Summary

- The CS-P rule is good, but the advisory needs clarification
- The important issues are identified and consensus is being achieved
- EASA and Dowty participation is achieved
- The working group is functioning well
- The team appears on-track for providing deliverables by year-end 2008

Ice Protection HWG Status

Presentation to ARAC TAEIG
Oct 17 - 2007

Tasking Status

- Task 1 - Closed via FAA letter 22 Feb 07
- Task 2 - Closed via FAA letter of 23 Jan 06
  - ⇨ Phase IV review still required
- Task 3 - Returned to FAA for further action (ref. FAA letter 13 Sep 99)
  - ⇨ No further IPHWG actions
- Task 4 – Closed (TAEIG meeting minutes 22 Mar 07)
- Task 5 & 6 - Closed via FAA letter 6 Jul 07
- Task 7 Completed coincident with other tasking

IPHWG Activities

- Task 2, Phase IV Review
  - ⇨ Funding for continued development of large droplet simulation methods is still uncertain
  - ⇨ Plan is to begin documenting an acceptable interim compliance methodology with currently available methods
    - Starting place for the Phase IV review
  - ⇨ No progress made to date

- Task 2 – Alternative analysis method for development of Appendix X (Initially reported in Nov. 2006)
  - ⇨ IPHWG support and resources to perform an alternate analysis have diminished
  - ⇨ Existing data analysis is technically valid and has IPHWG support
  - ⇨ Previous IPHWG recommendation still stands
  - ⇨ No further activity planned

IPHWG

- No future meetings planned at this time
  - ⇨ Will schedule meetings if required for Task 2, Phase IV review.
  - ⇨ Plan is to coordinate as required via teleconferences, e-mails

- Questions?

Engine HWG Status

Presentation to ARAC TAEIG
Oct 17 - 2007

Tasking Status

- Task 2, Phase IV Review:

- EHWG continues to meet to discuss a Technology Plan to develop adequate knowledge for means of compliance for High Ice Water Content (HIWC) environments
  - ⇨ Improved instrumentation to measure atmosphere
  - ⇨ Flight trials to characterize atmosphere (understand particle size, concentration and extent)
  - ⇨ Fundamental physics of ice accretion and shedding
  - ⇨ Test methods and facilities
- Purpose is to provide fundamental data for the development of appropriate certification tests and modeling of the engine in glaciated and mixed phase environments

Ongoing work

EHWG

- NASA/EC/FAA/NRC sponsored development of improved instruments to measure HIWC environment
- NASA/EC/FAA sponsored flight program using Viking S3 in HIWC environments, 2008-2010
- Definition of fundamental physics tests which could be supported by an industry consortium underway
  - ⇨ First steps taken to define series of tests at NRC
  - ⇨ Concept of rotating rig defined for compliance
  - ⇨ NASA Propulsion Systems Lab (PSL) retrofit with ice capability under consideration for altitude testing / future compliance
- NRC work on ice crystal test methods proceeding
- Some voluntary sharing of test results by industry partner

- Questions?

AAWG Report to TAEIG
October 17, 2007

Dr. Rao Varanasi
Co Chair
Airworthiness Assurance Working Group (AAWG)

Airworthiness Assurance Working Group

- Membership
- Meetings
- Current Task
- Status

AAWG Membership

Last Name	First Name	Representing	Voting	E-mail Address
Arabi	Mary	Airborne Express	Yes	mary.arabi@airborne.com
Coile	Mark	UPS	Yes	amx1mac@ups.com
White	Joe	ATA	Yes	jwhite@air-transport.org
Demarest,	Harry	American Airlines	Yes	harry.demarest@aa.com
Fenwick	Linsay	ALPA	Yes	fenwickl@alpa.org
Gaillardon	Jean-Michel	Airbus	Yes	jean_michel.gaillardon@airbus.fr
Goyaniuk	Bohdan	Transport Canada	No	goyanib@tc.gc.ca
Heath	David	Evergreen	Yes	david.heath@evergreenaviation.com
Jones	Rusty	FAA	Yes	Rusty.jones@faa.gov
Knegt	Martin	Fokker Services	Yes	martin.knegt@fokkerservices.storkgroup.com
Lotterer	Dave	RAA	Yes	david.lotterer@dc.sba.com
Moses	Joseph	Continental Airlines	Yes	jmoses@coair.com
Oberdick	Jon	USAirways	Yes	jober@usairways.com
Pattison	Gregg	Northwest Airlines	Yes	gregg.pattison@nwa.com
Pinsard	Laurent	EASA	Yes	Laurent.pinsard@easa.eu.int
Schneider	Greg	FAA	Yes	greg.schneider@faa.gov
Williams	larry	United Airlines	Yes	Larry.williams@united.com
Ashwell	Phil	British Airways	Yes	Phil.b.ashwelll@britiah-airways.com
Varanasi	Rao (Co-Chair)	Boeing	Yes	rao.varanasi@ boeing.com
Walder	Ray	IATA	Yes	walderr@iata.org
Jun	Yamanaka	JAL	No	jun.yamanaka@jal.com
Yerger	Mark (Co-Chair)	FedEx	Yes	mdyerger@fedex.com

Meetings

- The most recent meeting of the AAWG was September 12, 2007.
- Member Representatives from the following organizations were in attendance.

Airbus	FAA
American	FedEx
British Airways	Northwest
Boeing	United
JAL	ABx
UPS	

Meetings Con't

- Next Meeting is tentatively planned for November 2007.

Current Tasks

- AASFR Task:
  - Tasked - May 13, 2004;
  - Status - In work and on schedule;
  - Two Phases:
    - Phase 1 is complete as of April 2007
    - Scheduled Completion for Phase 2 is December 2009.

AASFR
ARAC Tasking

- On May 13, 2004, the FAA officially notified ARAC that it had tasked the AAWG to provide both Advisory Material and Model Specific Information.
  - Two Phases:
    - Phase 1 - Develops an Advisory Circular for compliance to §121.370a/129.16 - due December 2005;
    - Phase 2 - Develops any necessary Model Specific information needed for §121.370a/129.16 Compliance.
  - Phase 2 Tasking must be complete by Dec 2009.

TAEIG Action

- Accepted the AAWG Final Report and AC concerning Repairs (Task 1) December 2005.
- Authorized AAWG recommended follow-on work on Phase I, Tasks 2 and 3:
  - Phase I, Task 2 - Supplemental Inspections of Alterations;
  - Phase I, Task 3 - WFD analysis of alterations.
- Accepted the AAWG Final Report and AC concerning Repairs and Alterations (Task 2) June 27, 2006.
- Accepted the AAWG Final Report and AC for Phase I, April 2007

Phase 2, Task 4.—Model Specific Programs

- Oversee the Structural Task Group (STG) activities that will be coordinated for each applicable airplane model by the respective type certificate holders' and part 121 and 129 certificate holders. These STG activities will involve the development of model specific approaches for compliance with §§ 121.370a and 129.16 under the guidance material supplied in Task 1.
- As part of this tasking, the AAWG will identify those airplane models that do not have an STG, and will assess the need to form one (based on industry benefit). For those airplane models that will need to form an STG, the AAWG will initiate the coordination required to form the STG with the respective type certificate holder and/or part 121 and 129 certificate holders.
- In addition, the AAWG will support the implementation of the action plan to address recommendations made in tasks 2 and 3 as determined necessary by the ARAC, Transport Airplane and Engine Issues Group, and concurred with by the FAA.

Phase 2, Task 4 Schedule

- Development of Model Specific Compliance Data began April 2007 when the TAEIG accepted the AAWG Phase 1 recommendations.
- Completion of Phase 2 is scheduled for December 2009.

Task 4
AAWG Action

- During the September 12, 2007 AAWG meeting:
  - The FAA presented some elements that they may be considering for inclusion in the DAH Final Rule and AC on Damage Tolerance Data for Repairs and Alterations.
  - Discussed the critical initial element, Fatigue Critical Baseline Structure (FCBS) and its criteria and development.
  - Discussed the importance of forming and engaging model specific Structures Task Groups (STG) for several compliance tasks of the DAH rule.

Model Specific STG Status

Further AAWG Action

- Airbus STGs are already operational and preparing compliance data for the AASR.
- Boeing STGs will begin October 24, 2007 and include all turbine powered airplanes certificated to operate under 14 CFR 121, 129.
- An AAWG meeting is in the planning stages for mid November to discuss the formation of model specific task groups with other affected TC holders.

Proposed AAWG STG Role

(Currently under review by AAWG and FAA)

- The AAWG role will be to monitor the activities of the STGs and provide oversight support, with FAA's assistance, when and were the guidance material does not adequately address the situation.
- The AAWG will request that the STG Co-chairs provide periodic reports on progress and the AAWG will give periodic reports on progress at regularly scheduled TAEIG Meetings.

Questions?

This notice is published pursuant to 14 CFR 11.85.

Issued in Washington, DC., on September 13, 2007.

Pamela Hamilton-Powell,

Director, Office of Rulemaking.

Petition for Exemption

Docket No.: FAA–2007–28894.

Petitioner: Intermap Technologies, Inc.

Sections of 14 CFR Affected: §§ 25.173(c) and 25.175(c) 14 CFR.

Description of Relief Sought: The petitioner is seeking relief from the static longitudinal stability requirements that the average gradient of the stable slope of the stick force versus speed curve may not be less than 1 pound for each 6 knots in the approach flight phase for the installation of a Radar Radome on Learjet Model 35 and 36 airplanes, which have been designated as ''private, not-for-hire.''

[FR Doc. E7–18705 Filed 9–20–07; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Aviation Rulemaking Advisory Committee Meeting on Transport Airplane and Engine Issues

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of public meeting.

SUMMARY: This notice announces a public meeting of the FAA's Aviation Rulemaking Advisory Committee (ARAC) to discuss transport airplane and engine (TAE) issues.

DATES: The meeting is scheduled for Wednesday, October 17, 2007, starting at 9 a.m. Pacific Daylight Time. Arrange for oral presentations by October 3, 2007.

ADDRESSES: FAA–Northwest Mountain Region Office, Transport Standards Staff conference room, 1601 Lind Ave. SW., Renton, WA 98507.

FOR FURTHER INFORMATION CONTACT: Nicanor Davidson, Office of Rulemaking, ARM–207, FAA, 800 Independence Avenue, SW., Washington, DC 20591, Telephone (202) 267–5174, Fax (202) 267–5075, or e-mail at *nicanor.davidson@faa.gov*.

SUPPLEMENTARY INFORMATION: Pursuant to Section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92–463; 5 U.S.C. app. III), notice is given of an ARAC meeting to be held October 17, 2007.

The agenda for the meeting is as follows:

- Opening Remarks.
- Design for Security Harmonization Working Group (HWG) Report.
- FAA Report.
- Airplane-level Safety Analysis Working Group Report.
  - Closure of Task 2 and Status of Task 3.
- European Aviation Safety Agency Report.
- ARAC Executive Committee Report.
- Propeller HWG Report.
- Ice Protection HWG Report.
- Transport Canada Report.
- Airworthiness Assurance HWG Report.
- Avionics HWG Report.
- Any Other Business.
- Action Item Review.

Attendance is open to the public, but will be limited to the availability of meeting room space. Please confirm your attendance with the person listed in the **FOR FURTHER INFORMATION CONTACT** section no later than October 3, 2007. Entrance to the FAA facility will require presentation of a valid passport or state-issued (US) identification (e.g, driver's license). Please plan on arriving at least 20 minutes in advance of meeting to facilitate entrance screening.

For persons participating by telephone, the call-in number is (202) 366–3920; the Passcode is ''1986.'' To insure that sufficient telephone lines are available, please notify the person listed in the **FOR FURTHER INFORMATION CONTACT** section of your intent to participate by telephone by October 3, 2007. Anyone calling from outside the Seattle, WA metropolitan area will be responsible for paying long-distance charges.

The public must make arrangements by October 3, 2007, to present oral statements at the meeting. Written statements may be presented to the ARAC at any time by providing 25 copies to the person listed in the **FOR FURTHER INFORMATION CONTACT** section or by providing copies at the meeting. Copies of the documents to be presented to ARAC for decision by the FAA may be made available by contacting the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

If you need assistance or require a reasonable accommodation for the meeting or meeting documents, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section. Sign and oral interpretation, as well as a listening device, can be made available if requested 10 calendar days before the meeting.

Issued in Washington, DC on September 18, 2007.

Pamela Hamilton-Powell,

Director, Office of Rulemaking.

[FR Doc. E7–18693 Filed 9–20–07; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[Policy Statement No. ANE–2006–33.7–4–1]

Policy for Diesel (Compression Ignition) Engine Certification

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of issuance; policy statement.

SUMMARY: The Federal Aviation Administration (FAA) announces the final policy for Policy for Diesel (Compression Ignition) Engine Certification.

DATES: The FAA issued policy statement number ANE–2006–33.7–4–1 on September 6, 2007.

FOR FURTHER INFORMATION CONTACT: Mark Rumizen, FAA, Engine and Propeller Standards Staff, ANE–111, 12 New England Executive Park, Burlington, MA 01803; e-mail: *mark.rumizen@faa.gov*; telephone: (781) 238–7113, fax: (781) 238–7199. The policy statement is available on the Internet at the following address: *http://www.airweb.faa.gov/rgl.* If you do not have access to the Internet, you may request a copy of the policy by contacting the individual listed in this section.

SUPPLEMENTARY INFORMATION: The FAA published the policy on the Internet at *http://www.faa.gov/aircraft/draft_doc/* on December 9, 2006.

We have filed in the docket all comments we received, as well as a report summarizing each substantive public contact with FAA personnel concerning this policy. The docket is available for public inspection. If you wish to review the docket in person, go to the above address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Background

Several diesel engine models were certified in the United States and Europe before World War II. However, the development of higher performance spark-ignition engines fueled by leaded aviation gasoline (AVGAS) during that conflict resulted in a suspension of further development of these engines. Interest in diesel aircraft engines has