

**Procedural**

All meetings are open to the public. Please note that the meeting may close early if all business is finished. At the Chair's discretion, members of the public may make oral presentations during the meetings. If you would like to make an oral presentation, please notify the Executive Director no later than November 28, 2001. Written material for distribution at a meeting should reach the Coast Guard no later than November 28, 2001. If you would like a copy of your material distributed to each member of the Council in advance of the meeting, please submit 25 copies to the Executive Director no later than November 21, 2001.

**Information on Services for Individuals With Disabilities**

For information on facilities or services for individuals with disabilities or to request special assistance at the meetings, contact the Executive Director as soon as possible.

Dated: November 5, 2001.

**Jeffrey P. High,**

*Director of Waterways Management.*

[FR Doc. 01-28161 Filed 11-8-01; 8:45 am]

**BILLING CODE 4910-15-U**

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****Agency Information Collection Activity Under OMB Review**

**AGENCY:** Federal Aviation Administration.

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), this notice with the Information Collection Request (ICR) abstracted below has been forwarded to the Office of Management and Budget (OMB) for extension of the currently approved collection. The ICR describes the nature of the information collection and the expected burden. The Federal Register Notice with a 60-day comment period soliciting comments on the following collection of information was published on August 21, 2001, pages 43950-43951.

**DATES:** Comments must be submitted on or before December 10, 2001. A comment to OMB is most effective if OMB receives it within 30 days of publication.

**FOR FURTHER INFORMATION CONTACT:** Judy Street on (202) 267-9895.

**SUPPLEMENTARY INFORMATION:**

**Federal Aviation Administration (FAA)**

**Title:** Criteria for Internet Communications of Aviation Weather, NOTAM, and Aeronautical Data.

**Type of Request:** New collection.

**OMB Control Number:** None.

**Form(s):** None.

**Affected Public:** An estimated 10 interested persons or organizations desiring to become Qualified Internet Communications Providers (QICP).

**Abstract:** The Department of Transportation, in accordance with 49 CFR 1.47, delegated responsibility for aviation safety oversight to the FAA. The FAA has proposed the development of an advisory circular (AC) that establishes criteria for Qualified Internet Communications Providers (QICP), who provide access to aviation weather, Notice to Airmen (NOTAM) and aeronautical data via the Public Internet. The AC describes procedures for a provider to become and remain an FAA approved QICP.

**Estimated Annual Burden Hours:** 5,680 hours.

**ADDRESS:** Send comments to the Office of Information and Regulatory, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, Attention FAA Desk Officer.

Comments are invited on: Whether the proposed collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; the accuracy of the Department's estimates of the burden of the proposed information collection; ways to minimize the burden of the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

Issued in Washington, DC on November 5, 2001.

**Steve Hopkins,**

*Manager, Standards and Information Division, APF-100.*

[FR Doc. 01-28119 Filed 11-08-01; 8:45 am]

**BILLING CODE 4910-13-M**

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****Aviation Rulemaking Advisory Committee; Transport Airplane and Engine Issues—New Task**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of new task assignment for the Aviation Rulemaking Advisory Committee (ARAC).

**SUMMARY:** The FAA assigned the Aviation Rulemaking Advisory Committee a new task to review the acceptable design precautions for showing compliance with 25.903(d)(1), 23.903(b)(1), and 25.905 as described in AC 20-128A/ACJ25.903 and develop additional design precautions to mitigate shortfalls previously identified by ARAC.

**FOR FURTHER INFORMATION CONTACT:**

Mike Kaszycki, Federal Aviation Administration, Northwest Mountain Region Headquarters, 1601 Lind Avenue, SW., Renton, Washington, 98055, [mike.kaszycki@faa.gov](mailto:mike.kaszycki@faa.gov).

**SUPPLEMENTARY INFORMATION:****Background**

The FAA established the Aviation Rulemaking Advisory Committee to provide advice and recommendations to the FAA Administrator on the FAA's rulemaking activities with respect to aviation-related issues. This includes obtaining advice and recommendations on the FAA's commitments to harmonize Title 14 of the Code of Federal Regulations (14 CFR) with its partners in Europe and Canada.

**The Task**

- Review the acceptable design precautions for showing compliance with 25.903(d)(1), 23.903(b)(1), and 25.905 as described in AC 20-128A/ACJ25.903, and develop additional design precautions to mitigate shortfalls previously identified by ARAC.

- Develop a report that recommends the requirements for minimizing the hazards from uncontained engine, auxiliary power unit (APU) and propeller debris. This report should describe how to develop methods to determine "practicability" of controversial design precautions, recommend the location of these requirements within the rule or interpretive materials, and provide cost estimates using a format to be prescribed by the FAA.

- Recommend the necessary revisions to AC 20-128A and any further development of advisory materials necessary to address issues that may arise as a result of changes to the regulations.

- If as a result of the recommendations, FAA publishes an NPRM and/or notice of availability of proposed advisory circular for public comment, FAA may ask ARAC to review all comments and provide the agency a recommendation for the disposition of those comments.

**Schedule:** Required completion is no later than November 7, 2003.

## Aviation Rulemaking Advisory Committee (ARAC)

### Transport Airplane and Engine Issues

#### Meeting Minutes

**DATE:** December 4, 2001

**TIME:** 8:30 a.m.

**Location:** National Transportation Safety Board Room and Conference Center

Conference Rooms A & B

429 L'Enfant Plaza  
Washington, DC

#### Call to Order/Administrative Reporting

Craig Bolt, Assistant Chair, called the meeting to order. He provided information about the meeting facility and introduced Mr. Michael Kaszycki as the newly appointed Assistant Executive Director. Mr. Kaszycki proceeded to read the meeting procedures statement. Mr. Bolt welcomed the attendees who, in turn, introduced themselves. (See attached [Sign-In Sheet](#)). He reviewed the agenda ([Handout 1](#)) and distributed the E-Mail Update ([Handout 2](#)). June minutes were approved unanimously. Comments and revisions to the September minutes are due to Mr. Bolt by December 20.

Mr. Bolt reviewed the September Action Items and provided the following statuses:

Item No.	Status
1	Closed
2	Closed
3	Closed
4	Ongoing

Under the Items of Interests Since the Last Meeting, Mr. Bolt indicated that a recommendation/disposition of comments from the Continued Airworthiness Assurance Working Group and an economic evaluation from the Loads and Dynamics Harmonization Working Group (HWG) had been forward to the FAA. Also, three new taskings were published in the Federal Register—two are assigned to the Engines HWG; one to the Powerplant HWG.

Mr. Bolt also distributed the Open/Completed Taskings Chart ([Handout 3](#)), noting that the chart had been reordered alphabetically. Any revisions to the chart should be forwarded to him.

## FAA Report

Mr. Kaszycki discussed changes that had occurred at the Transport Directorate and the impact on the ARAC program. He distributed a report, detailing the status of fast track and nonfast track ARAC projects, challenges for processing rulemaking projects, steps being taken for addressing all certification rulemaking projects, Terms of Reference (TORs) approved at the Harmonization Management Team meeting, and TORs in development ([Handout 4](#)).

Discussion items included clarification of projects awaiting directorate and headquarters resources, review of rulemaking projects by the Department, and input on the type of report format that ARAC would like for regular updates. Other items included having the status report available on the internet.

Mr. Kaszycki indicated that the Harmonization Management Team (HMT) had approved three TORs.

Mr. Kaszycki announced that Aircraft Certification had hired an economist who will be working exclusively on certification projects but will be physically located in the same office with other FAA economists.

## JAA Report

Edmond Boullay reported that Thaddee Sulocki would address Single Worldwide Certificate Code at the March 2002 ARAC meeting.

## **Transport Canada**

Maher Khouzam announced that Martin Eley, known to this group, was nominated Director, Aircraft Certification. He also mentioned TCCA participation in all discussions surrounding Aircraft Security and Change Product Rule.

## **EXCOM Report**

The November meeting was cancelled. The next meeting is being planned for January 2002.

## **Harmonization Management Team**

Mr. Kaszycki stated that the JAA indicated that it is going forward with publishing many of the harmonization tasks independent of the FAA. He expressed concern for the need to develop a process for JAA standards/FAA draft standards regarding equivalent level of safety.

Discussion items included having a list of JAA “mature” Notices of Proposed Amendments and applicability of FAA part 25 policy to other directorates.

### **System Design and Analysis Working Group Formation**

Keith Barnett provided David Armstrong's name as one working group co-chair. Patrick Mattei will serve as the European co-chair. Mr. Barnett indicated that the group would be working in two phases. Phase 1 would involve incorporation of the FAA's legal comments. In phase 2, the group would have another look at the document with the full specific risk to determine if the working group should continue in existence.

Discussion items included formally addressing the FAA document regarding specific risk during phase 1. Mr. Kaszycki indicated phase 1 involves two specific aspects: (1) legal issues and (2) qualitative guidelines needed to explain deviations from average risk.

### **ARAC Tasking Priorities**

Mr. Kaszycki indicated that Aircraft Certification had identified 160 priority rulemakings. He indicated that factors being used to weigh the order of priorities include safety improvement and accident prevention, followed by accident mitigation, internal (business plans) external (Safety Board recommendation) drives, and the Administrator's commitments to industry. He emphasized that resources will be an issue in implementing the list.

Discussion items included prioritization of CAST items; the need for Aircraft Certification and Flight Standards to prioritize tasks; coverage of safety to include global issues, efficiency of systems, and political consideration; and future consistency between the FAA and JAA in other than harmonized rulemaking. The FAA and JAA are also looking at using the same or a similar tool/method to determine ordering of priorities.

### **Design for Security HWG**

Mark Allen, reporting by telephone, provided an overview of the status report (handout 5) and the following specific comments:

Section	Discussion
Flight Deck Smoke Protection	<p>--The airflow requirement will be high; it may require that all air packs be operational; working group looking at ways to address issue</p> <p>--Working group had been thinking about separate flight deck and cabin extraction requirements; some air flow issues still need resolving</p> <p>--Placement of smoke generators still an issue</p> <p>--FAA planning to do testing in near term; working group unsure of air flow and what pressure differentials have to be maintained</p> <p>--Working group in basic agreement; just need more numbers which will be obtained through test data</p>
Cabin Smoke Extraction	<p>--Working group discussing smoke concentration</p> <p>--FAA to conduct test to determine how much air is needed to drive out smoke</p> <p>--Benefit of hoods vs. current oxygen system (i.e., passenger mask). Hoods delay emergency evacuations and may not be a net safety benefit. A mask, on the other hand, is a dilutor system and cannot be used with the current design</p>
Systems Survivability	<p>--Nothing new to report from previous report; working group needs to agree on wording</p>
Cargo Compartment Fire Suppression	<p>--Outstanding issue is making distribution system flexible enough so that large deflections will not</p>

	<p>disable system</p> <p>-- Fire extinguishing systems have to be flexible</p> <p>--Working group did not look at reshielding or redundancy</p>
Least Risk Bomb Location	<p>--Working group near completion; needs to finalize wording</p> <p>--All working group members do not agree on the minimum design criteria for Least Risk Bomb Location</p>
Design for Interior Search	<p>--Near completion; need to finalize wording</p>
Penetration Resistance	<p>--Approved by ARAC in November</p> <p>--AIA submitted request for cockpit door to be retroactive; as a result FAA published portion of AC affecting design.</p> <p>--Honeywell suggested some improvements to the report, and working group members agree with some of the changes</p> <p>--FAA not in position to accept changes at this time because AC is expected to be published by December 15; FAA will consider changes during public comment period</p> <p>--No concern to change rule; language in AC is only concern</p>
Flight Deck Intrusion	<p>--Wording determined to be vague and open to interpretation</p> <p>--FAA concern about pass/fail criteria would be rulemaking by AC; FAA could add supplement to section stating an explicit change</p>

Mr. Allen indicated that he expects the working group to complete all of its assignments by the next ARAC meeting. Discussion items included aircraft being covered (60 or more passenger airplanes); final rule to address retroactive impact on part 121 aircraft with doors and all part 25 aircraft; long term FAA action to address bulkhead requirement separately; compliance date; definition of “door,” and impact on commuter category aircraft. Other discussion items included tasking the working group to dispose of comments to the AC, final rule with comments, and proposed rulemaking.

Tim Smith, Honeywell, and Pat Duvall, Flight Structures, Inc., each provided a 5-minute presentation on their company’s position and concern with the advisory circulars (handouts [6](#) and [7](#)).

## Ice Protection HWG

Jim Hoppins, reporting by telephone, provided an overview of the status report ([Handout 8](#)) and the following specific comments:

Task	Discussion
Part 121 Operations Rule and Associated Advisory Material	--No further action required; working group will have an opportunity to review
Large Droplet Requirement	--Part 23 will be removed from task  --Working group recommending interim certification standards; group doesn't have a lot of global data  --Working group intends to present “rough” concept at March ARAC meeting  --Significant challenges regarding data (limited, inconsistencies in FAA data bank); drop size and liquid water content (LWC) characterization ; sensitivity effects



	of drop size ad LWC characterization; and compliance method
Make §§ 23.1419 and 25.1419 the same	--With FAA for further action; part 23 review will be independent; no further action planned
Harmonize § 25.1419 and JAR 25.1419	--Flight Test HWG proposed harmonized language in § 25.1419; FAR/JAR language are en route to being harmonized; advisory material is not
Effects of Icing Requirement Changes	--Delayed by technical agreement for task 2; no work currently being done on task
AOA Ice Protection Requirement	--No work currently being done on task
Develop or Update Advisory Material	--Being worked concurrently with rule proposals and means of compliance

Mr. Hoppins indicated that final TAE approval will probably not occur until 2004. He indicated that some members have been affected by travel constraints.

## Economic Evaluation

Allen Mattes provided a discussion on the role of the FAA economist and what the economist looks for in determining costs and benefits. He indicated that the economist looks at what has been done before rule, and what will be done after rule. He discussed inclusion of administrative costs/compliance costs, up front (administrative) costs; and looking at operational things, such as weight. He encouraged working groups to invite economists to listen to working group discussions on technologies. Other discussion items included having the “right” components in the working group to insure that all costs as well as regulatory factors are covered; looking at time, including “down” time and loss revenue to a system (not individual companies) when looking at retrofitting rules.

Mr. Kaszycki indicated that the economists are not involved in certain fast track projects because a streamline process has been agreed upon that allows TAD to provide the regulatory analysis for those rules. He indicated that the economists use standards established by the Office of Management and Budget and the Labor Department. Mr. Mattes encouraged members and working group chairs to call him

Larry Hanson raised concerns about working group members not being able to speak for industry regarding costs; working group members having to go to companies for signoff; and not being qualified as technical people to quantify costs.

## **Loads and Dynamics HWG**

Larry Hanson distributed a status report ([Handout 9](#)) and proceeded to talk about progress made by the working group since the last ARAC meeting and plans for 2002. The October meeting was cancelled because many of the working group members were unable to attend; progress was made through e-mails and teleconferences. The working group plans to close out the remaining tasks as quickly as possible to support development of the A-380 design requirements for ground and landing conditions, and because of the uncertain future of ARAC taskings which may not be safety related. All working group meetings will be held during the first six months of 2002, with the last meeting being scheduled in June.

## **Engine HWG**

Jerry McRoberts distributed a status report (Handout [10a](#) [10b](#)) and provided an overview of bird ingestion rulemaking, bird threat, and flocking bird requirements, and the working group members. He provided the following specific comments:

<b>Task</b>	<b>Discussion</b>
Bird Ingestion	--General agreement on rule

	<p>and AC material for combination of big bird/big engine</p> <p>--A few minor issues have to be resolved; expect to reach technical agreement at next meeting on 12/18</p> <p>--Working group intends to look at smaller engine sizes to see if further work is required</p>
Bird Control Recommendations	<p>--Bird population is increasing in the number and size of bird events; current engines are not designed to withstand ingestion of large flocking birds, therefore aircraft risk due to multi-engine ingestion is increasing aircraft will not be tolerant of attacks 20 years from now.</p> <p>--Unanimous approval to forward recommendation to FAA</p> <p>--Discussion about FAA offices that will need to be involved; FAA should provide date for feedback to the ARAC</p> <p>--Mr. Bolt to include in transmittal letter an offer to discuss recommendations with FAA offices</p>
Critical Parts	<p>--Task group has drafted documents but major issues exist</p> <p>--Unsure whether working group will have a product after April 17, 2002 meeting.</p>

John Ackland distributed a status report ([Handout 11](#)). He indicated that the group had met in September but had been unable to finish all the necessary work at the meeting; the group plans to meet in January. The group expects to have a final package for discussion at the ARAC March meeting, but may be hampered by lack of economic support.

## Human Factors HWG

Curt Graeber distributed a status report ([Handout 12](#)) and provided an overview of the working group's progress, description of the group's website, procedures for rating current regulations and human factors aspects. He indicated the working group had found 10 deficiencies including definition of an "average pilot," and regulations based on old technology. The working group believes that its tasking needs clarification because of ambiguity regarding the nature of the team product; and working group's plan only to develop recommendation for future tasking. Mr. Graeber said that concerns had been raised about travel constraints; work plan not addressing drafting; use of temporary policies; need to extend schedule if drafting is required, mixed backgrounds and lack of regulatory experience among member; and the need to have had a more straightforward tasking.

ARAC members redirected the working group to start addressing the 10 deficiencies. Discussion items included having working group look at developing smaller task groups to determine if "right" people are on the working group, prioritize level 1 recommendations, having Avionics HWG work on AC 25.11, and having a status report at March ARAC meeting.

## Mechanical Systems HWG

Pat Waters, reporting by telephone, summarized recent activities of the working group report ([Handout 13](#)) and provided the following specific comments.

<b>Task</b>	<b>Discussion</b>
25.831(g)	--Co-chairs have agreed to move schedule up 1 year w/FAA writing interim guidance
25.841	--FAA wants direction from working group and then will write interim guidance  --Six subgroups formed; plan to meet in March; will provide something to FAA after meeting
25.1438	--Working group members disagreed with rule language added by FAA on specific time to hold pressure  --New wording proposed by FAA under review
25.1453	--FAA modified report to require approval of oxygen cylinders; DOT requirements more stringent; no means for JAR to obtain DOT approval  --Rule may not be harmonized

Discussion items included flavor of working group meeting held in Seattle, and inconsistency in FAA' acceptance of the issue of probability

## **Electrical Systems HWG**

Working group report distributed earlier ([Handout 14](#)). Working group has been focusing on supporting the Aging Transport System Rulemaking Advisory Committee's Wiring Separation HWG and reviewing FAA drafted materials from reports submitted by the working group.

## **Electromagnetic Effects HWG**

Allen Mattes urged to put in words encouraging movement of HIRF rulemaking. TAD has committed to prioritizing Lightning AC's.

## **Flight Test HWG**

Status report distributed earlier ([Handout 15](#)). Working group has completed current taskings and continues to support other HWGs. The working group drafted a TOR addressing §25.177; awaiting priority from HMT.

## **Seat Test HWG**

Recommendations within FAA. Jeff Gardlin cleaning up AC 25.562-1B with intent to meet with working group in February.

## **ETOPS Tasking**

Air Carrier working group continues to work issues. Working group was scheduled for completion in September, but several issues have been raised affecting schedule. Currently doubtful that working group will have something completed by March 2002.

## **Flight Control**

Work on § 25.671 is on hold pending the outcome of § 25.1309.

## **Avionics Systems HWG**

See discussion in Human Factors HWG report section.

### General Structures HWG

Amos Hoggard, reporting by telephone, reviewed the status report ([Handout 16](#)). The October meeting was cancelled; little progress has been made except on § 25.571; and the next meeting will be held in December. Five active tasks assigned to group: 25.613 is awaiting publication in the Federal Register; §§ 25.307, 25.621, 25.783, and 25.963 (FAA changed position on previously agreed on statement) are at the FAA for evaluation. General membership has agreed to support three meetings next year.

The following tasks remain in the working group

Task	Discussion
25.365	--The working group intends to flush aspects of assignment; issues have not changed; will need assistance from other working groups, such as MSHWG
25.571	--Hope to have something ready at March meeting
25.603	--Enveloping exercise  --Will probably have report in March
25.631	--FAA trying to determine if research contract will provide sufficient information; working group waiting and watching
25.683	--Slow to get started; don't believe there is a lot of work to be done; call sent out to working group members to set up meeting

## Airworthiness Assurance Working Group

Mr. Hoggard then proceeded to give an update on working group activities ([Handout 16](#)).

Task	Discussion
Widespread Fatigue Damage	--TAD has completed legal review  --Letters have been released to the Original Equipment Manufacturers requesting their intent to support development of specific material  --Anticipate NPRM to be sent to FAA headquarters in December  --FAA and JAA are participating in development of AC 91-56
Multiple Complex STC	--First meeting held in August; working on work plan but scope of task cannot be determined  --Next meeting scheduled for January; FAA expected to clarify task to the industry about what rule they are suppose to be writing  --Looking for third party Supplemental Type Certificate holder

## Powerplant Installation HWG

Working group report was distributed electronically ([Handout 17](#)). The working group is working on five tasks. Both Mr. Bolt and Andrew Lewis-Smith provided updates.



<b>Task</b>	<b>Discussion</b>
25.1187/863	--Planning to complete for March ARAC meeting
25.904, Appendix I	--Progress is being made; expect completion March 2002
25.903(d)	--Expects to be completed in November 2002
25.975	--Waiting for feedback from FAA; may need new schedule
25.1305	--May have some overlap with Human Factors HWG

### **Wrapup**

Action Items: Will be distributed electronically.

Meeting Schedule: Discussion included reducing number and duration of meetings. Members agreed that 2002 would be good time for scheduling only three meetings.

Meetings will be held as follows:

<b>March 12-13</b>	<b>Washington, DC</b>
June 18-19	Seattle, Washington
October 15-16	Location to be determined

### **Public Notification**

The *Federal Register* published an announcement of the meeting on November 9 ([Federal Register](#)).

### **Approval**

I certify the above minutes are accurate.

Craig Bolt

Assistant Chair

# AVIATION RULEMAKING ADVISORY COMMITTEE

## TRANSPORT AIRPLANES AND ENGINE ISSUES

### Sign-In Sheet

December  
November 4, 2001

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# AVIATION RULEMAKING ADVISORY COMMITTEE

## TRANSPORT AIRPLANES AND ENGINE ISSUES

### Sign-In Sheet

*December*  
November 4, 2001

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AVIATION RULEMAKING ADVISORY COMMITTEE

TRANSPORT AIRPLANES AND ENGINE ISSUES

Sign-In Sheet

December  
November 4, 2001

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## December 4, 2001 TAEIG Action Items

1. Comments on September minutes by December 20 to Effie Upshaw and Craig Bolt.
2. Mike Kaszycki to send copy of his presentation to C. Bolt for electronic distribution to TAEIG.
3. Mike Kaszycki to take concept of using equivalent safety finding process to SMT to allow use of harmonized "draft" rules when appropriate. Mike to send C. Bolt copy of policy memo (Done) and provide to ACO's.
4. Edmond Boullaly/Thaddee Sulocki to send Mike K. list of "mature NPA's." Completed.
5. Mike K. to forward list of prioritized FAA tasks to C. Bolt for distribution after it has been finalized. (Will include criteria)
6. Allen Mattes to investigate options of getting HIRF package broken loose from economic evaluation.
7. APO to support FGHWG in Phoenix. Brenda Courtney to assist as required.

**Transport Airplane and Engine Issues Group Meeting  
National Transportation Safety Board Room and Conference Center  
Conference Rooms A and B  
429 L'Enfant Plaza  
Washington, D.C.**

**DRESS: BUSINESS CASUAL**

***Tuesday, December 4, 2001 - 8:30 AM Call in number : (202) 493-2477 -8:30 to 11:30  
and 1 to 5***

8:30	Call to Order, Reading of the Procedures Statement, Review of Agenda, Review of Minutes, Meeting Logistics, Review of Action Items, Items of Interest	C. Bolt/M. Kaszycki
8:50	FAA Report	M. Kaszycki
9:00	JAA Report / Single Worldwide Certification Code	T. Sulocki
9:15	Transport Canada Report	M. Khouzam
	Excom Report	No Report
9:30	Harmonization Management Team Report	T. Sulocki / C. Huber
9:45	<b>-- Break --</b>	
10:00	ARAC Tasking Priorities Discussion	FAA / TAEIG
10:30	Design for Security WG Report	M. Allen
11:00	Ice Protection HWG Report	J. Hoppins
11:30	<b>-- LUNCH --</b>	
12:15	Loads & Dynamics HWG Report	L. Hanson
12:45	Engine HWG Report	J. McRoberts
	• Review and Agree Bird Management Recommendation	
1:15	Electrical Systems HWG Report	FAA / B. Overhuls
	• ATSRAC Update	
1:45	System Design and Analysis	All
	• Working Group Formation	
2:00	<b>-- BREAK --</b>	
2:15	Human Factors HWG Report	C. Graeber
2:45	Mechanical Systems HWG Report	P. Waters
3:15	General Structures / Airworthiness Assurance HWG Report	A. Hoggard
4:00	<ul style="list-style-type: none"> <li>• Electromagnetic Effects HWG</li> <li>• Flight Test HWG</li> <li>• Powerplant Installation HWG</li> <li>• Seat Test HWG</li> <li>• Electromagnetic Effects HWG</li> <li>• ETOPS Tasking</li> <li>• Flight Guidance HWG</li> <li>• Flight Control HWG</li> <li>• Avionics System HWG</li> </ul>	Written reports as needed.
4:30	Review Action Items / 2002 Meeting Schedule	C. Bolt
5:00	<b>-- ADJOURN --</b>	

**Transport Airplane and Engine Issues Group Meeting  
National Transportation Safety Board Room and Conference Center  
Conference Rooms A and B  
429 L'Enfant Plaza  
Washington, D.C.**

**DRESS: BUSINESS CASUAL**

***Tuesday, December 4, 2001 - 8:30 AM Call in number : (202) 493-2477 -8:30 to 11:30  
and 1 to 5***

8:30	Call to Order, Reading of the Procedures Statement, Review of Agenda, Review of Minutes, Meeting Logistics, Review of Action Items, Items of Interest	C. Bolt/M. Kaszycki
8:50	FAA Report	M. Kaszycki
9:00	JAA Report / Single Worldwide Certification Code	T. Sulocki
9:15	Transport Canada Report	M. Khouzam
	Excom Report	No Report
9:30	Harmonization Management Team Report	T. Sulocki / C. Huber
9:45	<b>-- Break --</b>	
10:00	ARAC Tasking Priorities Discussion	FAA / TAEIG
10:30	Design for Security WG Report	M. Allen
11:00	Ice Protection HWG Report	J. Hoppins
11:30	<b>-- LUNCH --</b>	
12:15	Loads & Dynamics HWG Report	L. Hanson
12:45	Engine HWG Report	J. McRoberts
	<ul style="list-style-type: none"> <li>• Review and Agree Bird Management Recommendation</li> </ul>	
1:15	Electrical Systems HWG Report	FAA / B. Overhuls
	<ul style="list-style-type: none"> <li>• ATSRAC Update</li> </ul>	
1:45	System Design and Analysis	All
	<ul style="list-style-type: none"> <li>• Working Group Formation</li> </ul>	
2:00	<b>-- BREAK --</b>	
2:15	Human Factors HWG Report	C. Graeber
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4:00	<ul style="list-style-type: none"> <li>• Electromagnetic Effects HWG</li> <li>• Flight Test HWG</li> <li>• Powerplant Installation HWG</li> <li>• Seat Test HWG</li> <li>• Electromagnetic Effects HWG</li> <li>• ETOPS Tasking</li> <li>• Flight Guidance HWG</li> <li>• Flight Control HWG</li> <li>• Avionics System HWG</li> </ul>	Written reports as needed.
4:30	Review Action Items / 2002 Meeting Schedule	C. Bolt
5:00	<b>-- ADJOURN --</b>	

## **E-MAIL UPDATE SINCE SEPTEMBER 2001 MEETING**

08/31/2001 E-mail Update since 06/19/2001

08/31/2001 TAEIG: Call in numbers

08/31/2001 Updated Agenda for September's Meeting

08/31/2001 Vacation

09/13/2001 TAEIG: FGSHWG Minority Opinion

09/14/2001 TAEIG

09/19/2001 TAEIG-September 2001 Action Items

09/26/2001 ATR comments

09/26/2001 ATR

10/01/2001 ARAC Task

10/01/2001 Clarification of : ARAC Task

10/02/2001 TAEIG: ATR's

10/15/2001 ARAC meeting notice

10/17/2001 TAEIG: Special Meeting

10/23/2001 TAEIG: Design for Security Advisory Circulars

10/26/2001 TAEIG Meeting Notice

11/05/2001 FW: TAEIG: 11/9 TAE Ad Hoc Meeting

11/07/2001 TAEIG: Design for Security Presentation

11/09/2001 Nov 9 TAEIG Meeting Presentation

11/12/2001 TAEIG: ATA/AIA/AECMA Petition

11/13/2001 Dec TAEIG Meeting

11/14/2001 TAEIG: Submittal of Bird Control Recommendations to TAEIG

11/16/2001 Agenda for the December 4, 2001 TAEIG Meeting

11/19/2001 TAEIG: June TAEIG Draft Meeting Minutes

11/26/2001 TAEIG New Taskings - Federal Register 11/9/01



11/26/2001 12/4 TAEIG Meeting Notice

11/26/2001 ARAC New Tasks - Federal Register 11/7/01

11/26/2001 TAEIG: FTHWG Status Information

11/26/2001 TAEIG: Flight Deck Security Recommendations

11/26/2001 Updated Agenda for December 4th meeting

**Legend:**

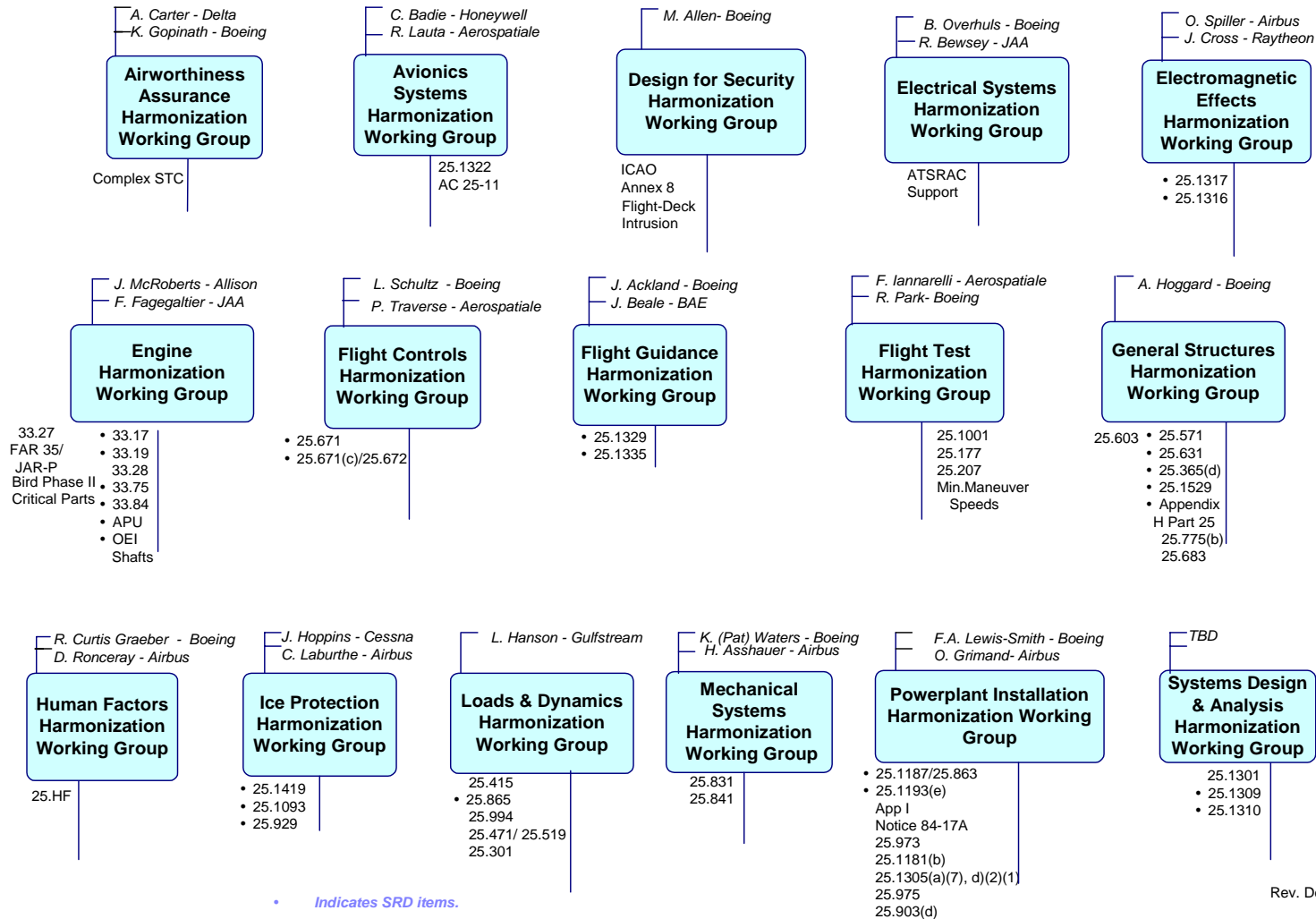
**Presently Tasked:**

**To be Tasked:**

## Working Groups Under TAEIG - Open Taskings

### Transport Airplane and Engine Issues Group

FAA Part 21, 25, 33, 35  
JAR 21, 25, E, P, Subpart J



**Legend:**

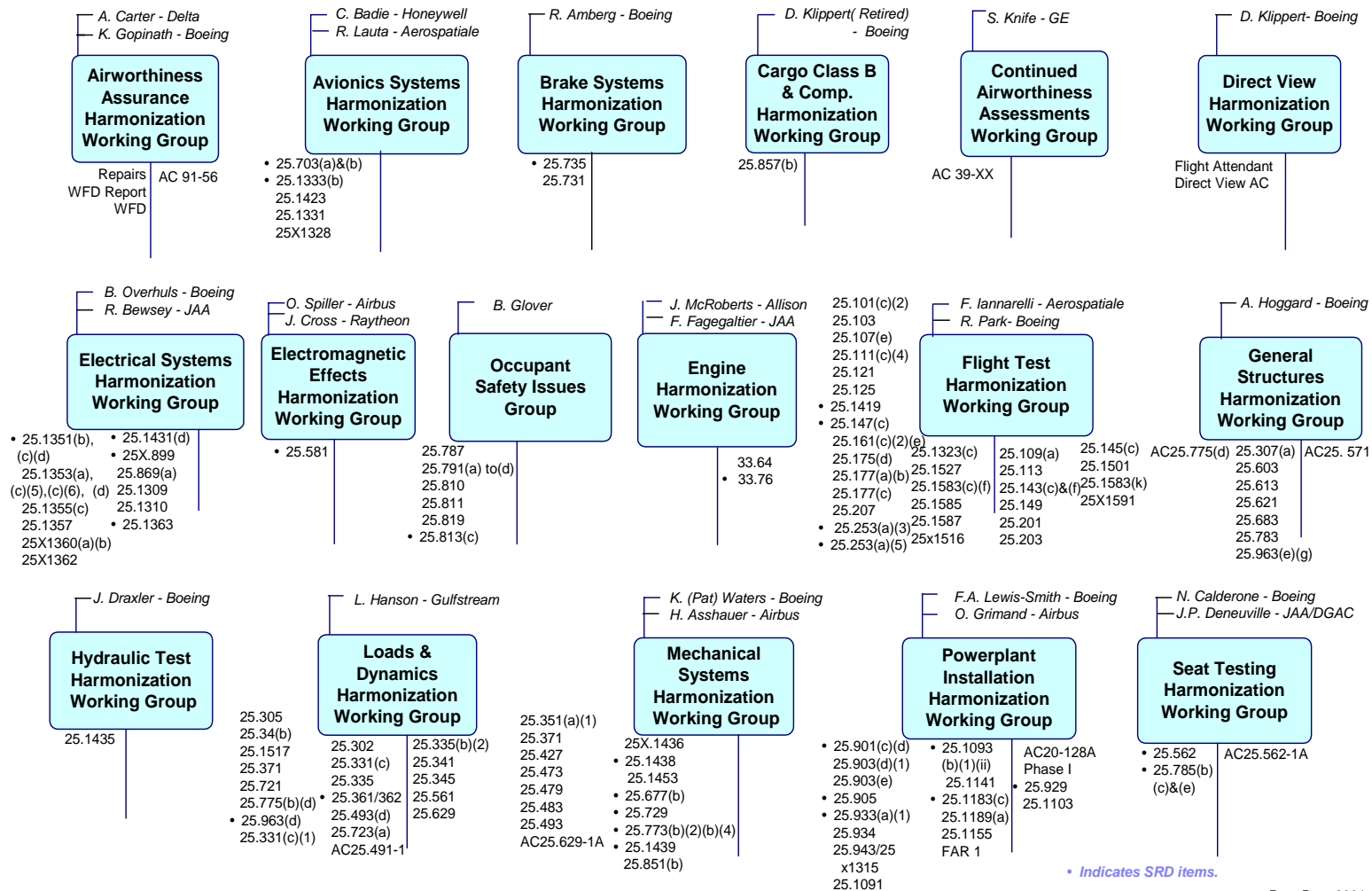
FAA Actions  
Pending

FAA Actions  
Completed

## Working Groups Under TAEIG - Completed Taskings

FAA Part 21, 25, 33, 35  
JAR 21, 25, E, P, Subpart J

### Transport Airplane and Engine Issues Group





# December 2001 TAEIG Meeting

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- Fast track project status
  - Schedule reflects further “bundling” into 62 projects
  - Progress since 3/01 (previous HMT meeting):
    - Final actions completed 9  
(6 actions packaged in 1 bundle)
    - Significant progress 28
    - Progress noted but completion by target date is unlikely 10
    - Limited or no progress 24



# December 2001 TAEIG Meeting

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- Non-fast track project status
  - 20 projects in work
  - Priority given to 7 projects in TAD 2002 business plan
    - Progress to date on track for 2002 commitments
  - Schedules to be developed for all projects - similar to those developed for fast track projects



## December 2001 TAEIG Meeting

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- Challenges for processing rule making projects
  - Competing priorities for FAA tech. writers
  - Impact to working group progress following Sept. 11 events
  - OMB requirement (Andrew Card memo) issued spring 2001 requires ALL rule making be reviewed by OST
- Updated SMT prioritization for all AIR rule making projects completed November 2001



## December 2001 TAEIG Meeting

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- SMT prioritization provides focus on highest priority projects and a roadmap for future business plans
- TAD will implement monthly progress reviews on all rule making projects starting January 2002
- FAA wants to work with TAEIG to identify rule making progress measures and a frequency for regular updates



## December 2001 TAEIG Meeting

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- HMT approved TOR (11/01). Projects need to be prioritized before work can begin
  - Nose wheel steering (25.745)
  - Fuselage post crash fire protection (25.856)
  - Tire burst (25.729 & 25.963(g))
- TOR in development (11/01)
  - Remotely located, occupied areas (25.819) in coordination with JAA specialist





## December 2001 TAEIG Meeting

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- Final actions completed since 3/01
  - Revised landing gear shock absorption test requirements (AC), §§ 25.723, 25.725
  - Revision of hydraulic system guidance to harmonize with JAA (AC), § 25.1435
  - Revision to requirements concerning airplane operating limitations and the content of airplane flight manuals, §§ 25.1516, 25.1527, 25.1583(c), 25.1583(f), 25.1585, 25.1587





## December 2001 TAEIG Meeting

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- Significant progress made since 3/01
  - NPRM's
    - **4** In OST for concurrence
    - **4** In headquarters' for concurrence
    - **7** In directorate for concurrence
    - 7 In ARAC for WG comments
  - Final Rules
    - 1 In headquarters' for concurrence
    - **5** With engineer or writer-editor



## December 2001 TAEIG Meeting

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- Progress noted since 3/01 but completion by target date unlikely
  - 10 RPR's yet to be approved
    - **3** In headquarters' for approval
    - 5 RPR's in directorate for concurrence
    - **2** RPR's with engineer or tech writer



## December 2001 TAEIG Meeting

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- Limited or no progress made since 3/01, current status
  - 1 Project Awaiting Information from APO
  - 6 Projects Awaiting TAD Resources
  - 6 Projects Needing Additional Information from Working Group
  - 8 Projects Awaiting Input from ARAC

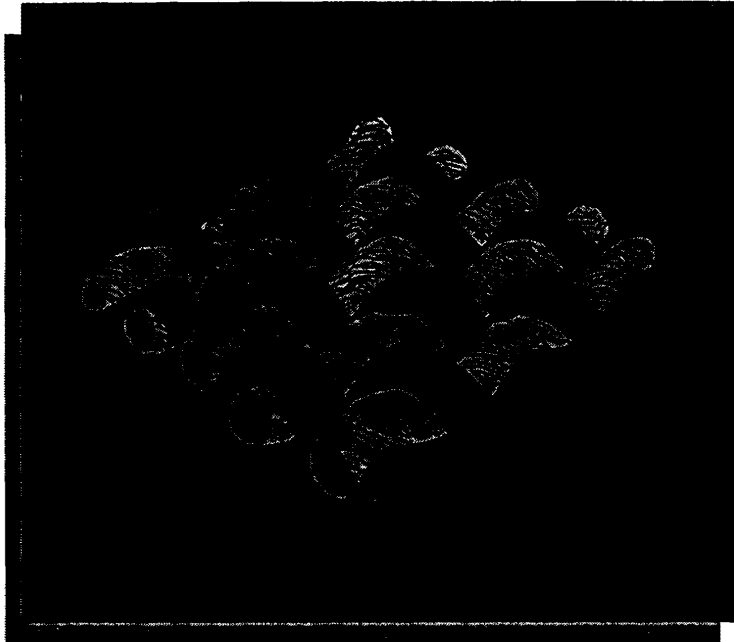
# **Spectra<sup>®</sup> Ballistic Materials in Aircraft Security**

# Applications

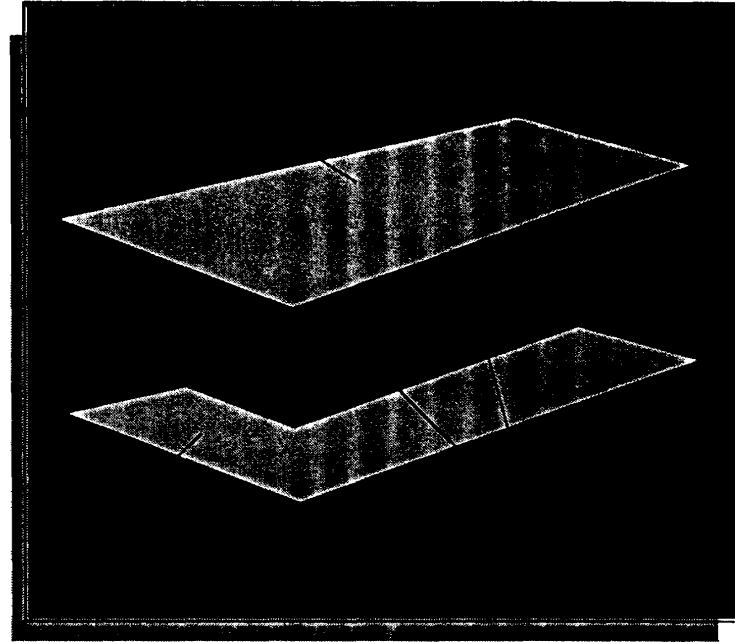
- **Armor - Vests, Helmets, Breast Plates, Vehicles,  
Spall Lining, Blast Containment**
- **Cordage - Ropes, Netting, Slings**
- **Fishing Lines - Spiderwire<sup>®</sup>**
- **Sporting Goods - Sailcloth, Kite String, Bow String,  
Backpacks, Water-ski Tow  
Lines**
- **Cut Resistance - Gloves, Aprons, Sleeves**
- **Composites - Golf Shafts, Radomes, Boat Hulls,  
Tennis Rackets**
- **Niche - Dental Floss, Space Tether, Medical**

# Spectra Shield® Technology

## Woven Fabric



## Shield Technology

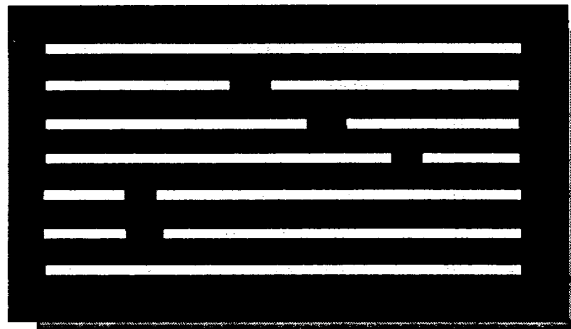


- In Shield Technology the fibers are not crimped, allowing the energy of the projectile to rapidly dissipate.
- Shield technology was developed by Honeywell in the late 1980's specifically for ballistics to maximize Spectra® fiber's high tenacity and high modulus properties.

**Spectra®**

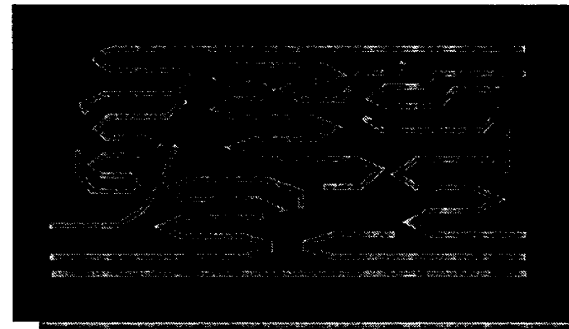
# Spectra® Technology - Fiber Morphology

## Spectra® Gel-Spun Extended-Chain Fiber



- Very High Molecular Weight
- Very High Degree of Orientation
- Minimum Chain Folding

## Conventional Fiber (Nylon / Polyester)



- Relative Low Molecular Weight
- Moderate Orientation
- Crystalline Regions Chain Folded

- Spectra® is a High Modulus Polyethylene fiber. The high molecular weight of the polymer differentiates it from polyethylene used in every day applications.
- It's high Tenacity (strength) and high Modulus (stiffness) make it an outstanding ballistic material.

**Spectra®**

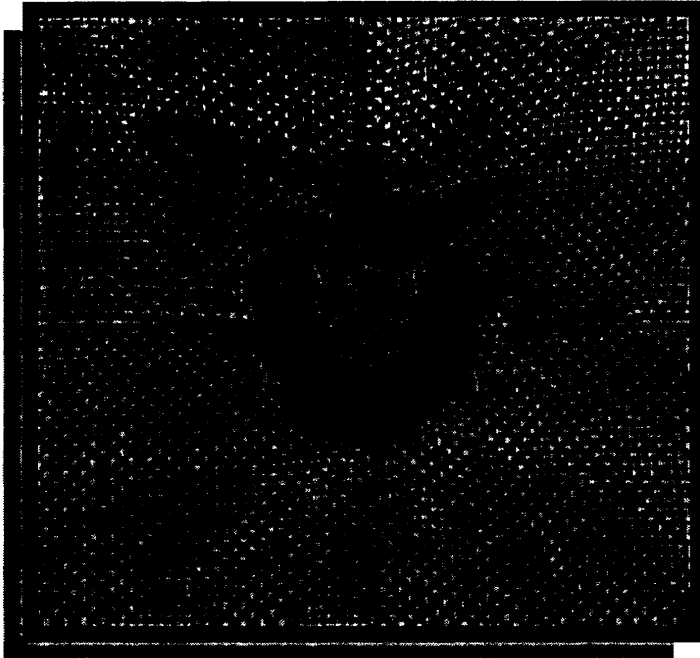


# **Spectra® Fiber Attributes**

- **One of the strongest and lightest manmade fibers**
- **Pound for pound 10 times stronger than steel**
- **Superior cut resistance**
- **Outstanding toughness and abrasion resistance**
- **Resists chemicals, water and sunlight**
- **Excellent flex fatigue and low stretch**
- **Light enough to float (.97 specific gravity)**
- **Low dielectric constant**
- **High modulus**
- **Excellent impact resistance**

# **Spectra® Shield Technology**

## **Energy Dispersion Pattern**



**Traditional  
Woven**



**Shield  
Technology**

**Non Woven Shield Technology rapidly disperses energy.**

**Spectra®**

# **Spectra® Strengths in Cockpit Door Applications**

- **Light weight**
  - **Specific gravity less than one (.97)**
- **Outstanding Impact Resistance**
  - **High tenacity and high modulus**
- **Hydrophobic Properties**
  - **Spectra® fiber does not absorb or degrade in water**
- **Chemical Inertness**
  - **Spectra® fiber does not degrade when exposed to most chemicals**
- **Spectra® Composites can be designed to pass FAA flammability requirements.**

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# **Ice Protection HWG Status**

Presentation to ARAC TAEIG  
December 4, 2001

# IPHWG - Task 1

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**Task 1** - As a short-term project, consider the need for a regulation that requires installation of ice detectors, aerodynamic performance monitors, or another acceptable means to warn flight crews of ice accumulation on critical surfaces requiring crew action (regardless of whether the icing conditions are inside or outside of Appendix C of 14 CFR Part 25). Also consider the need for a Technical Standard Order for design and/or minimum performance specifications for an ice detector and aerodynamic performance monitors. Develop the appropriate regulation and applicable standards and advisory material if a consensus on the need for such devices is reached.

# Status on Task 1

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## Proposed Part 121 operations rule and associated advisory materials

- ⇒ FAA economic analysis in work, but delayed due to higher priorities after September 11
- ⇒ IPHWG approval/review of final draft expected 2<sup>nd</sup> Qtr '02
- ⇒ TAEIG vote by 3<sup>rd</sup> Qtr '02

## Proposed Part 25 certification rules and associated advisory materials

- ⇒ Certification rule quasi-“Fast Tracked” in Dec '00
- ⇒ TAEIG vote (June '01) to submit the Task 1 report to the FAA with a recommendation to proceed with 25.1419, but withhold rulemaking on 25.1420 until further progress is made on the Task 2 deliverables
- ⇒ No further IPHWG actions required

## IPHWG - Task 2

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### **Task 2** - Review National Transportation Safety Board

recommendations A-96-54, A-96-56, and A-96-58, and advances in ice protection state-of-the-art. In light of this review, define an icing environment that includes supercooled large droplets (SLD), and devise requirements to assess the ability of aircraft to safely operate either for the period of time to exit or to operate without restriction in SLD aloft, in SLD at or near the surface, and in mixed phase conditions if such conditions are determined to be more hazardous than the liquid phase icing environment containing supercooled water droplets. Consider the effects of icing requirement changes on 14 CFR part 23 and part 25 and revise the regulations if necessary. In addition, consider the need for a regulation that requires installation of a means to discriminate between conditions within and outside the certification envelope.

## Status on Task 2

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As stated in the previously submitted Task 2 report, the group recommends to TAEIG that IPHWG develop at least interim SLD certification standards

- ⇒ Will not be a complete revision of the Appendix C envelopes.
- ⇒ Will be sufficient to permit generation of ice shapes for use in the remainder of Task 2
- ⇒ Tentative plan is to propose new rule, separate from current 14 CFR/JAR 25.1419 requirements

Still working towards completing interim standards to concept approval during first quarter of 2002

- ⇒ Intend to submit rough concept
- ⇒ Any significant deviations from concept would require reapproval of TAEIG



## Task 2

# Significant Technical Challenges

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### Data Limits

- ⇒ Available data is limited to winter stratiform cloud conditions
- ⇒ Limits of altitude and temperature bounded by research/flight methodology, not physical limits
- ⇒ Not all the data has the same level of confidence due to instrumentation limitations
- ⇒ Proceeding with existing data and will document limits in preamble materials

### Drop size and liquid water content (LWC) characterization

- ⇒ Significant quantities of water in small droplets can exist within large droplet environments
- ⇒ Overall water content is a function of cloud droplet distribution

## Task 2

### Significant Technical Challenges (cont.)

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Sensitivity effects of drop size and LWC characterization

- ⇒ Ice shape growth can vary significantly depending on percentage of small droplets within cloud

Compliance methods

- ⇒ Analytical & physical test capabilities are required to simulate large droplet conditions
  - Funded and in development by NASA and other international partners (DERA/QINETIQ, INTA, MSC, NRC, ONERA/CePR)

Task 2 report submitted to TAEIG 14 Feb. '01 contains detailed discussion on challenges

## Status of Tasks 3 & 4

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### Task 3 - Propose changes to make FAR 23.1419 and 25.1419 the same

- ⇒ Returned to FAA for further action (ref. FAA letter Sept 13 '99)

### Task 4 – Harmonize FAR 25.1419 and JAR 25.1419

- ⇒ Task revised to remove reference to 14 CFR 23 and engine requirements 25.929 & 25.1093 (ref. FAA letter Sept 13 '99)
- ⇒ FTHWG has proposed harmonized rule 25.1419 and AC against 25.21(g) for aircraft handling criteria in icing conditions
- ⇒ IPHWG Task 1 proposed harmonized 25.1419(e) with AC
- ⇒ Current FAA/JAA advisory materials for 25.1419 are not harmonized
- ⇒ Rule language may not require harmonization, but need to review advisory materials in light of recently proposed changes.
- ⇒ Tentatively scheduled for '03

## Status of Task 5

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Task 5 – Consider the effects icing requirements changes may have on FAA/JAA 25.773(b)(1)(ii), 25.1323(e), 25.1325(b). Revise & harmonize

- ⇒ Revised to add reference to JAA and added harmonization (Ref. FAA letter Nov. 10, 1999)
- ⇒ Coordinate with SDAHWWG
- ⇒ IHT 5.1 “recommendations will be developed after technical agreement has been reached on Task 2”
- ⇒ Tentatively scheduled for ‘03

## Status of Task 6 & 7

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### Task 6 – Consider AOA ice protection requirement

- ⇒ Determine if already implicitly covered by existing regulations.
- ⇒ If not, review safety record and determine if issue exists
- ⇒ Propose appropriate regulations
- ⇒ Tentatively scheduled for '03

### Task 7 – Develop or update advisory material

- ⇒ Originally treated as separate tasking
- ⇒ Rule proposals and means of compliance have been considered concurrently
- ⇒ Task 7 being worked concurrent with individual tasks and not as a separate follow-on task

# IPHWG Schedule as of 12/2001

Task Name	2001				2002				2003				2004			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Task 1 - Warning of Ice Accumulation</b>																
Part 121 Operations Rule Final Draft to TAEIG					◆ 3/2											
Legal/Economic Review					6/26			2/28								
Working Group Approve Final Draft							2/28									
TAEIG Approval								5/24								
Part 25 Certification Rule Final Draft to TAEIG w/ Report							5/24	■ 6/28								
<b>Task 2 - Large Droplet Environment</b>					◆ 6/1											
Work Plan to TAEIG (3/9/98)																
TAEIG Approve Work Plan (3/9/98)																
TAEIG Approve Concept																
IPHWG Technical Agreement																
Final Draft (prelim FAA legal and tech writing)																
Final Draft to TAEIG																
Legal / Economic Review																
Working Group Approve Final Draft																
TAEIG Approval																
<b>Task 3 - Closed, No Action Required</b>																
<b>Task 4 - Harmonize 25.1419</b>																
<b>Task 5 - Windshield, Pitot/Static requirements</b>																
<b>Task 6 - Determine need for AOA IPS requirements</b>																
<b>Task 7 - Advisory Material to be developed as required</b>																
<b>Meeting Schedules (4 per year)</b>																

# IPHWG Meeting Schedule

When	Where	Notes
February 4 - 8, 2002	Santa Fe, NM	
May 20 - 24, 2002	Toulouse, France	
Sep 9 - 13, 2002	North America	Dallas/Ft Worth Atlanta Chicago São José dos Campos
Dec 2 - 6, 2002	Europe	Brussels, Hoofddorp
1 <sup>st</sup> Qtr, 2003	North America	
2 <sup>nd</sup> Qtr, 2003	Europe	
3 <sup>rd</sup> Qtr, 2003	North America	
4 <sup>th</sup> Qtr, 2003	Europe	

# Priorities / Concerns

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## Priorities

- Will continue focus on resolving Task 2 issues
- Will perform Task 1 final review as soon as FAA economic & legal review is complete
- Remaining tasks will not be addressed until Technical agreement is reached on Task 2

## Concerns

- Declining company participation due to travel restraints
- Aggressive schedule on Task 2 given the difficulty of the technical issues to be resolved



# L&D HWG Status Report

Larry Hanson, Chairman

**4 December 2001 TAEIG Meeting**

# Discussion Items

- L&DHWG Progress since September TAEIG Meeting
- L&D HWG 2002
  - Plans for closing out tasks
    - 25.865 Fire Protection of Flight Controls, Engine Mounts, and other Structure
    - 25.471/25.519 Ground Handling, Towing, & Landing Descent Velocity Tasks
    - 25.301(b) Flight Loads Survey
  - Meeting Schedule

# L&D HWG Progress Since September TAEIG Meeting

- 16-18 October meeting canceled as only one US company could attend
- Progress continued via email and telecon

# L&D HWG 2002

- Plan is to close out the remaining tasks as rapidly as possible
  - Need to support development of A-380 design requirements for ground and landing conditions
  - Need to close out tasks due to unsure future of ARAC tasking
- All meetings moved to first half of 2002

# L&D HWG 2002 Meetings

- Meeting 1 - Ft. Lauderdale Embraer January 29-31
  - Objectives:
    - Close out Fire Protection Task
    - Review FAA landing data for Landing Descent Velocity task
    - Progress ground/towing loads task
    - Major progress on Flight Loads Survey

# L&D HWG 2002 Meetings

- Meeting 2 - Hoofddorp RLD - April 16-18
  - Objectives:
    - Close out Flight Loads Survey task
    - Close out ground/towing task
    - Review Airbus data for Landing Descent Velocity task

# L&D HWG 2002 Meetings

- Meeting 3 - Gatwick CAA - June 11-13
  - This is planned to be the last formal meeting of the L&D HWG
  - Objectives
    - Progress Landing Descent Velocity task
    - Respond to public comments on NPRMs published in Fed Register
    - Historical review of group accomplishments

# L&D HWG 2002 Meetings

- After the June meeting the L&DHWG is planned to have only one task left to complete - Landing Descent Velocity
- Work required to close that task will be accomplished by the task group. Final approval will be via email by the HWG.
- Unless significant additional tasking is assigned, all future business will be handled via email and telecon






# WORKING GROUP ACTIVITY REPORT

Date: December 4<sup>th</sup>, 2001

- ARAC Issue Group: Transport Airplanes and Engines
- Working Group Name: Flight Guidance System HWG
- Task Title:

25.1329/25.1335 - Automatic Flight Control and Guidance  
System Requirements Harmonization and Technology  
Update
- Task Description

Review 25.1329/1335, JAR paragraphs 25.1329/1335 plus material contained in NPA 25F-243 in addition to Sec. 121.579 and the associated Advisory Circular 25.1329-1 and ACJ 25.1329. Update and harmonize the Part 25 sections and the associated guidance material, in the light of the review of regulatory materials, current certification experience, and changes in technology and system design.

Review recommendations that stem from recent transport aviation events and relate to crew error, cockpit automation and in particular, automatic flight control/guidance made by the NTSB, the FAA Human Factors Team, and the JAA Human Factors Steering Group. Make any proposed amendments to Sections. 25.1329/25.1335 and advisory materials that are needed to resolve these recommendations.
- Expected Product(s)    NPRM     AC     Other 
  - Proposal for revisions to the Flight Test Guide

- **Status & Schedule:**

### **Status**

There was a Plenary meeting during the week of September 24th. The comments received on Draft 15 of the AC/ACJ were reviewed and dispositioned. The First Draft of the Working Group report was reviewed. There was a discussion on two Minority Opinions in attempt to reach resolution. The final immature section of the AC/ACJ and its associated Appendix (Compliance Demonstration using Flight Test and Simulation) were reviewed and progressed. There was a discussion on the proposed Change Product Rule and associated considerations relating to providing data on the financial implications of the new 25.1329 Rule. The Group was not able to complete all of the work necessary at the meeting in September and invoked its contingency plan for a follow up meeting in January.

A Draft 17 of the AC/ACJ was produced after the meeting and distributed to the Group for comment. A Draft 2 of the Working Group Report was produced after the meeting and distributed to the Group for Comment. GAMA produced a proposal for alternate wording in the AC/ACJ and that has been distributed to the Group for Comment.

### **Future Plans**

The next, and FINAL, Plenary meeting will occur during the week of January 7<sup>th</sup>, 2002. We will go through the comments on:

- 1) Draft 17 of the AC/ACJ
- 2) GAMA Proposal
- 3) Working Group Report

with the intent to prepare a final package for TAEIG before the end of January, 2002

The Group will attempt to reach FINAL technical agreement at the Plenary meeting in January. The indications are that the FGSHWG will have two Minority Opinions one from Airbus and one from GAMA.

## **Schedule**

<b>Date</b>	<b>Meeting type</b>	<b>Location</b>	<b>Comment</b>
<b>September 5<sup>th</sup>, 2001</b>			<b>Draft 15 distributed to HWG</b>
<b>September 24<sup>th</sup> – 28<sup>th</sup>, 2001</b>	<b>Plenary</b>	<b>Rochester, UK</b>	<b>"Final" technical agreement?</b>
<b>October 5<sup>th</sup>, 2001</b>	<b>Editors</b>		<b>Draft 16 to GAMA</b>
<b>November 16<sup>th</sup>, 2001</b>	<b>Editors</b>		<b>Distribute Draft 17 plus WGR Version 2 plus .....</b>
<b>January 7<sup>th</sup> – 11<sup>th</sup>, 2002</b>	<b>Plenary</b>	<b>Phoenix</b>	<b>Final technical agreement</b>
<b>January 31<sup>st</sup>, 2002</b>			<b>Transmit Package to Chairman - TAEIG</b>

# Human Factors HWG

Curt Graeber  
Report to the TAEIG  
December 4, 2001  
Washington, DC

# **HF HWG Progress**

*October 16-19, 2001 Boston, MA*

- Completed deficiency data consolidation
- Determined importance of deficiencies for safety
- Finalized process and “success criteria” for developing recommendations
- Developed deficiency filtering/rating criteria (modified JSAT) to prioritise deficiencies to facilitate recommendation development
- Received FAA/JAA/TC request to clarify tasking

## Ratings Procedure

- Our dual-approach analysis produced 265 deficiencies to rate.
- The deficiency details were presented in text files on the HF HWG website.
- Ratings were submitted by filling out a rating form on the website.
- Each member rated each of the deficiencies
  - Is the deficiency within the scope of the TORs?
  - How important is the deficiency for safety?
- Almost a third of the members voted remotely

*operation  
vs  
design*

# Groups of Deficiencies

- Regulations
  - Subparts B & C 42 deficiencies
  - Subpart D 39 deficiencies
  - Subpart E 35 deficiencies
  - Subpart F 55 deficiencies
  - Subpart G 69 deficiencies
  
- Human factors aspects
  - Pilot characteristics 9 deficiencies
  - Controls 11 deficiencies
  - Flight deck environment & External aspects 11 deficiencies
  - Regulatory process 7 deficiencies
  - Information 7 deficiencies
  - Human machine interface 10 deficiencies

*Handwritten notes:*  
 June 7  
 Deficiencies  
 Process  
 How do you  
 evaluate  
 Curt

# Sample Rating Form From the HF HWG Website

0	1	2	3	4	5	6	-
No importance	Little importance	Slightly important	Moderately important	Quite important	Highly important	Extremely important	unable to rate
C	C	C	C	C	C	C	C



# Top Ten Deficiencies

## Controls Design

- HIF topics not addressed, technology based, can't guide new tech
- Error tolerant design guidance missing

## HMI (human machine interface)

- Lack of guidance on error resistant design
- Feedback information requirements not defined
- Design of autopilot/autothrottle interface (e.g., mode indications)
- Lack of criteria\guidance on understanding of automation behavior [pilot knowledge & skills, etc]
- No definition of pilot population characteristics that apply ("avg")

## Rules/Guidance

- AC 25-11 (electronic displays) No guidance on info. requirements
- 25.1303 (flight, nav. instruments) No HMI guidance (e.g., formats)
- 25.1309 No guidance on HMI rqmts or failure response procedures

*you did not  
ask what  
was done*

*AC 25-11 based on old technology  
no guidance on how human  
will interface*

*What is an 'average pilot'?*  
*AC 25-11 rule to be worked on  
by Avionics group (Crews)  
will look to that*

# CAST JSAT-Based Criteria

Should deficiency be solved by a change to part 25 airworthiness requirements or through some other change (e.g., Operating rules)?

If YES, then evaluate the following:

## Safety

- **Importance:** how significant is the deficiency to aviation safety?
- **Future applicability:** do we believe the deficiency will continue to represent a safety problem in the future on a widespread basis?
- **Power:** how well does our proposal address the problem?
- **Confidence:** in practical application, will our proposal work as intended?

## Feasibility

- **Cost-effectiveness:** does the expected safety benefit justify the cost?
- **Technical maturity:** is the state-of-the-art (either technical or human factors) adequate to implement this proposed solution?
- **Regulatory feasibility:** would the regulatory authorities be willing/able to promulgate the proposed fix (legal, policy, or other issues)?
- **Pilot acceptance:** will pilots support the proposed solution?

## FAA Clarification of Tasking

### Summary of Issue:

- There is some ambiguity in the tasking regarding the nature of the team product.
- The HFHWG is only planning to develop recommendations for future ARAC tasking
- The FAA/JAA/TC consider it important to start work on the development of regulatory material (rules and/or advisory circulars) as soon as possible after receipt of the final report.
- Future tasking = delays of several years
- Therefore, the FAA/JAA/TC wish to clarify (rather than change) the tasking in the HFHWG TORs.

*1st TOR's or ref  
material?  
HFHWG not intended  
to develop recommendations*

## Action Recommended

- What follows is the FAA/JAA/TC recommendation for how to proceed
- It is intended to allow the HWG to focus its resources
  - Provide at least some recommendations for near-term regulatory development
  - Allow less effort on lower priority deficiencies
- The FAA/JAA/TC recommend the following 3-tiered approach to the development of recommendations:
  - Level 1: Recommendations for which the FAA/JAA/TC should proceed with rulemaking and/or AC development
  - Level 2: Other high priority items requiring ARAC tasking
  - Level 3: Remaining deficiencies

*focus resources*

**- Level 1: Recommendations for Which the  
FAA/JAA Should Proceed With Rulemaking  
and/or AC Development**

- HWG should select a deficiency (or deficiencies) for which acceptable recommendations can be developed within the HFHWG schedule.
- Actual regulatory content (rule and/or advisory material) should be developed for a deficiency (or group of deficiencies)
- Upon receipt of the final report, the FAA/JAA/TC will then continue the development and formulation of the actual rule and/or advisory material for publication and public comment.

*"Within Schedule" - conflict  
no AC or Rule*

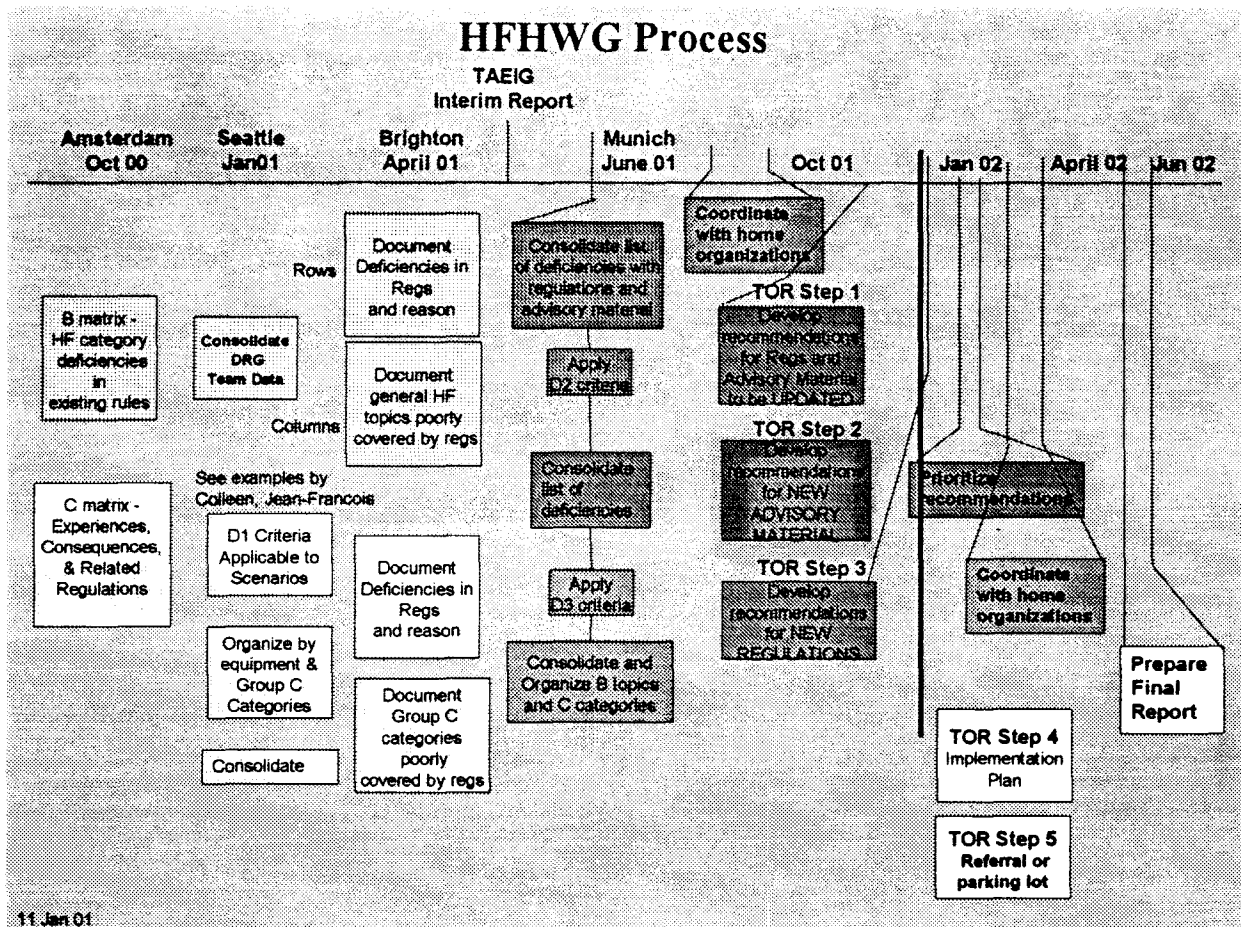
## Level 2: Other High Priority Items

- These should be developed to identify needed ARAC tasking
- These should not include any deficiencies which would require research prior to the tasking of a future ARAC team (if research would be necessary to develop requirements and/or methods of compliance).
- The FAA/JAA/TC will then consider and use these inputs when developing requests for future ARAC tasking.
- It should be noted that only high priority projects are likely to receive ARAC tasking (so Level 2 should be a small set of recommendations).

Provide  
advice  
but  
should  
not take  
on

### **Level 3: Remaining Deficiencies:**

- These are other deficiencies which should be retained for future reference, but which do not warrant ARAC tasking at this time.
- These can be summaries of the deficiencies, but do not require development of specific recommendations.
- After other Level 2 recommendations are tasked, the FAA/JAA/TC will periodically review this list for possible future regulatory development.
- Any deficiencies requiring research prior to tasking should be identified (so that we can use the data when generating research projects).



*Hub need more time to agree on what to draft*



# HF HWG Issues & Priorities

- Participation seriously affected by travel constraints
- Current Work Plan schedule does not allow for drafting
- Concern about FAA/JAA use of temporary HF policies
- Any drafting will require a schedule extension
  - Revised work plan & schedule will be submitted for approval
  - Any drafting will require an extension & additional meetings
  - Extension length will depend on deficiencies to be addressed
- Lack of regulatory experience among membership
  - Will require smaller drafting teams
  - Some members may self-select to terminate

how  
to  
proceed

FAA/JAA have  
developed ideas &  
material  
material

1st pilot  
TC  
American

HW comprised of 2 regulators  
& 2 pilots  
some issues might affect  
Flight standards but  
don't necessarily have  
proper people in dept

# HF HWG Issues & Priorities

## Next Steps

- Develop recommendations for updating existing FARs/ACs to address deficiencies
- Develop recommendations for new ACs/AMJs
- Determine if new regulations are needed to address any deficiencies
- Tentatively assign recommendations
  - Determine draft material to be developed by HF HWG
  - Provide draft ARAC tasking for material that should be drafted by others

Level 1 - important for safety

Take confusion in why existing FARs/ACs are not working. I am sure future taskings will be given by recommendations need to develop tasking group to do work

tasking literally no place to point to for specific guidance. Definitely need guidance may not need new rules. Draft material maybe latitude for use from state

# Future Meetings

## Next meeting:

✂Dates: Jan. 22-25, 2002

✂Location: Long Beach (hosted by FAA)

## Future meetings:

✂Dates: April 9-11, 2002

✂Location: Paris (hosted by DGAC)

✂Dates: June 11-13, 2002

✂Location: Ispra, Italy (hosted by European JRC)

## If needed:

✂Dates: October 9-11, 2002

✂Location: Washington, DC or Toulouse

12/3/01

# Mechanical Systems Harmonization Working Group Report to TAEIG December 2001

Kenneth (Pat) Waters, Co-Chair  
Associate Technical Fellow  
Environmental Control Systems  
Boeing Commercial Airplane Group  
425-342-2466  
Kenneth.l.waters@boeing.com

Current Activities

- New Tasking, 25.831(g) and 25.841(a)
- 25.1438 Issue Resolution
- 25.1453 Issue Resolution

New Tasking, 25.831(g) and 25.841(a)

- Tasked in July 2001. WG Reports originally due in 2 years
- Co-chairs agreed to complete WG Reports in one year
- FAA agreed to write interim guidance for 25.831(g) to allow industry to pursue Alternate Means of Compliance
- FAA wants direction established on 25.841(a) by March 2001. They will then write interim guidance for 25.841(a).
- First meeting of expanded MSHWG held week of November 26. 24 members include academia, industry, labor unions, regulatory authorities, NASA, US Airforce, etc.
- Week spent mostly on issues associated with rapid decompression [25.841(a)].

New Tasking, 25.831(g) and 25.841(a)

- Six sub-groups formed to work issues,
  1. Physiological Time-Histories
    - a. Upper altitude limit (presently 40K)
    - b. Time above altitude (presently limited to 2 min. above 25K)
    - c. Type of oxygen masks in cabin
    - d. Altitude at which pilots must don masks
  2. Excluding Uncontained Engine Failures from 25.841(a) and allowing them to be covered under 25.903(d). This sub-group will work jointly with PPIWG.
  3. Allowing probabilities to be used in showing compliance to all failures.

4. Addition of time delay to rule (example: 17 seconds before start of descent)
  5. Deleting tire, wheel, and rim failures.
  6. Feasibility of structural damage assessment.
- A focal was selected to head each sub-group. Recommendations are due to MSHWG at our next meeting in Toulouse, France, week of March 18, 2001.



25.1438 Issue Resolution

- FAA wants to specify time to hold the test pressure for proof and burst testing to ensure complete expansion of the device being tested.
- Report on NPRM returned to MSHWG for resolution.
- Telecon held with MSHWG members and other participants on November 6, 2001.
- FAA (Ken Frey) proposed new wording to resolve issue on November 14, 2001. Now under review by participants.
- Revised report due January 2001.

25.1453 Issue Resolution

- NPRM modified from WG Report proposal to require approval of oxygen cylinders by DOT.
- Common practice for US manufacturers to obtain DOT approval for oxygen cylinders. However DOT requirements more stringent than ACJ requirements.
- No means for JAR to obtain DOT approval. This may be an area of the rule that will not be harmonized.
- Telecon in January to discuss proposed draft.

# WORKING GROUP ACTIVITY REPORT

Date: December 4, 2001

Page 1 of 5

- ARAC Issue: Transport Airplanes and Engines
- Working Group Name: Electrical Systems Harmonization Working Group
- Task Title:     Task 1 – Electrical Generating and Distribution Systems  
                      Task 2 – Electrical Bonding and Protection Against Lightning and Static Electricity
- Task Description: The following differences between FAR 25 and JAR 25 and their associated guidance material have been identified as having a potentially significant impact on airplane design and cost. The ESHWG will develop recommendations to harmonize these FAR and JAR requirements.

Task 1 – Phase 1: FAR and JAR 25.1351(b) currently have different requirements relating to generating system power sources, distribution busses and cables, and associated control, regulation and protection devices. FAR and JAR 25.1351(c) define minimum requirements for connecting external power to the airplane electrical power system, with additional parameters for external power protection listed in the JAR. FAR and JAR 25.1351(d) address alternate/standby power systems. FAR 25.1351(d) defines minimum requirements to enable safe operation in VFR conditions for a period of not less than five minutes to enable engine relight. JAR 25.1351(d), with its related ACJ, requires provision for a high integrity alternate/ standby power system with a duration for time limited systems compatible with JAR-OPS and ICAO Annex 8. This ACJ also provides Interpretive Material for non-time limited alternate/standby power sources and specifies services that must remain powered following loss of normal electric power.

Task 1 – Phase 2: The following FAR and JAR differences have been identified as having a lesser impact on airplane design and cost. FAR and JAR 25.1353(a) and 25.1431(d) address electrical interference on systems, with additional requirements contained in the JAR. FAR and JAR 25.1353(c) address control of storage battery charging. The JAR applies these requirements to all nickel-cadmium batteries, regardless of size or function, and adds requirements relating to maintenance of over-temperature sensing devices. FAR and JAR 25.1353(d) address electrical cable requirements, with the JAR containing additional requirements. FAR and JAR 25.1355(c) address electric power distribution. The JAR introduces Interpretive Material concerning segregation of electrical feeders to minimize the possibility of cascade or multiple failures. JAR 25X1360 addresses precautions against injury, with no equivalent FAR. JAR 25X1362 addresses emergency supplies for emergency conditions, with no equivalent FAR. FAR and JAR 25.1363 address testing criteria. The JAR contains additional criteria to be considered. The System Design and Analysis Harmonization Working Group (SD&A HWG) has proposed that the ESHWG harmonize and update 25.1310 (previously 25.1309(e) & (f)).

# WORKING GROUP ACTIVITY REPORT

Date: December 4, 2001

Page 2 of 5

The TAEIG added two new tasks at the meeting on September 14 -15, 1999, which are to be included in the Task 1, Phase 2. They are FAR/JAR 25.869(a), which addresses fire protection of electrical system components and FAR/JAR 25.1357, which addresses requirements for electrical circuit protection devices.

Task 2: JAR 25X899 and associated ACJ 25X899 provide for consideration of electrical bonding and protection against lightning and static electricity. An equivalent paragraph does not exist in the FAR.

- Expected Product(s) NPRM ☒ AC ☒ Other ☒

- Schedule:

Task 1, Phase 1 – (Category 1 Items) (3 Items)

FAR/JAR: 25.1351(b), 25.1351(c), 25.1351(d)

Task 1, Phase 2 – (Category 1 Items) (12 Items)

FAR/JAR: 25.869(a), 25.1309(b)(amj), 25.1310, 25.1353(a), 25.1353(c)(5), 25.1353(c)(6), 25.1353(d), 25.1355(c), 25.1357, 25X1360, 25.1363, 25.1431(d)

Task 1, Phase 2 – (Category 3 Item) (1 Item)

FAR/JAR: 25X1362

Task 2 – (Category 1 Item) (1 Item)

FAR/JAR: 25X899

(NPRMs issued for FARs shown in Italics)

	FAA Team	Working Group	TAEIG
1) Publication of the Federal Register Notice	Sept. 11, 1998		
2) Working Group Report(s) Complete		May 25, 2000	
3) Phase 2 Complete (TAE Approves WG Report)			September 13, 2000
4) TAE Submits Report to FAA			September 18, 2000
5) Phase 3 Complete (FAA Drafts NPRM)	10 Complete 7 Remaining (Apr. 20, 2001)		
6) NPRM Back to HWG	10 Complete 7 Remaining (Apr. 20, 2001)		
7) Phase 4 Complete (WG and TAE Approve NPRM Report) (Considered "Technical Agreement")		10 Complete (May 17, 2001) 7 TBD	6 NPRMs Issued (May 17, 2001) 11 TBD

- Status – Convened eleven meetings outlined below.

# WORKING GROUP ACTIVITY REPORT

Date: December 4, 2001

Page 3 of 5

Meeting #1 – Long Beach, California; January 12-14, 1999

- A. Established working group policies.
- B. Drafted Work Plan defining task and working procedures.

Meeting #2 – London, England; March 30 – April 1, 1999

- A. Gathered background data on JAR 25.1351 and 25X899
- B. Drafted letter to TAEIG regarding categorization of assigned FAR/JAR paragraphs under “Fast Track”.
- C. Began “Fast Track” work group procedures.

Meeting #3 – Seattle, Washington; July 6-8, 1999

- A. Began discussion on 25X899 with group divided into two positions.
- B. Compromise position on 25X899 was to be worked out by next meeting.
- C. Created first drafts of two Category 1 working group reports.

Meeting #4 – Hoofddorp, The Netherlands; October 19-21, 1999

- A. Completed first drafts of remaining Category 1 working group reports.
- B. Work group would review all report drafts to resolve any issues between fourth and fifth meetings.

Meeting #5 – Wichita, Kansas; November 30 - December 2, 1999

- A. Completed final drafts of all Category 1 FAR/JAR paragraphs.
- B. Submitted thirteen of sixteen reports to TAEIG at December meeting.
- C. Held back three reports for further review of cost impact statement.

Meeting #6 – Paris, France; February 15-17, 2000

- A. Finalized the remaining three Category 1 reports and submitted to TAEIG.
- B. Began identification of issues for the Category 3 item, 25X1362.
- C. Members would gather data on products from each company to help establish industry practice regarding subject addressed in 25X1362 in preparation for next meeting.

Meeting #7 – Ottawa, Canada; May 23-25, 2000

- A. Discussed all issues relating to 25X1362 and completed final draft of the working group report.
- B. Submitted final working group report to TAEIG.

Meeting #8 – Palm Coast, Florida; October 31 – November 2, 2000

- A. Reviewed drafts of NPRMs from FAA, which resulted from six working group reports and approved with few comments.
- B. Reviewed JAA draft of PNPA 25DF-317 which outlines JAA response to ESHWG working group reports.
- C. Noted possible “deharmonization” of 25.1310 due to FAA delay in issuing NPRM.
- D. Proposed three TORs for future ESHWG tasks and submitted to TAEIG for review and approval.

Meeting #9 – Bristol, England; May 15 – 17, 2001

# WORKING GROUP ACTIVITY REPORT

Date: December 4, 2001

Page 4 of 5

- A. Welcomed new member from Embraer and a new FAA focal to the working group.
- B. Reviewed drafts from FAA, which resulted from four working group reports and approved with several comments.
- C. Co-chairs from the Wire Systems Harmonization Working Group (WSHWG) established by ATSRAC joined our meeting for one-half day to familiarize ESHWG with ATSRAC Task 6 and to establish working relationship. Schedule for both groups to meet concurrently was agreed upon to allow maximum coordination for completion of ATSRAC tasks.
- D. Began task of modifying draft AC 25.1351-1 to reflect proposed harmonization of FAR/JAR 25.1351 and associated ACJs. During discussion it was noted that in recent certification projects the FAA has written Issue Papers, Special Conditions, etc., that require compliance to standards even more stringent than the harmonized standards proposed by ESHWG for FAR/JAR 25.1351(d). Since the FAA has not completed the draft NPRM for FAR/JAR 25.1351(d), the ESHWG determined that further guidance on FAA policy regarding FAR 25.1351(d) is required.

## Meeting #10 – Toulouse, France; August 21-24, 2001

- A. No new draft NPRMs were available from the FAA for our review.
- B. Continued review of FAA Policy Statement ANM-01-111-159 that relates to FAR 25.1333 and 25.1351(d). The impact of this on the ESHWG recommendation for the harmonized FAR/JAR 25.1351 is not yet clear.
- C. One day was devoted to ESHWG business and the rest were the first combined meeting for the ESHWG and the WSHWG.
- D. Combined meeting of ESHWG and WSHWG reviewed the six tasks from ATSRAC and began to create the plan for completion. WSHWG is working to provide the basic structure of the recommendations and the combined ESHWG/WSHWG meetings will fill in the details. There still are some questions regarding the scope of this task, which must be addressed by ATSRAC.

## Meeting #11 – Seattle, Washington; November 6-9, 2001

- A. No new draft NPRMs resulting from our original tasking were available from the FAA for our review.
- B. Combined meeting of ESHWG and WSHWG continued review of the tasks from ATSRAC which are shared between the ESHWG and WSHWG working groups. The meeting had only three ESHWG members in attendance.
- C. Our concern from the previous meeting about task definition and scope was clarified.
- D. ATSRAC Task 6.4, which is to draft proposed new subpart H paragraphs, continued to formulate proposals to identify which existing paragraphs are related to electrical wiring and the new rulemaking that will be required to create the new FAR Part 25 Subpart H.

# WORKING GROUP ACTIVITY REPORT

Date: December 4, 2001

Page 5 of 5

- E. ATSRAC Task 6.5 addresses the characteristics of wire aging and methods to mitigate the resulting effects. The group discussed the results of improper maintenance and the effects of heat, vibration, chafing and insulation types as related to "aging".
  - F. ATSRAC Task 6.6, which addresses wire systems safety assessment issues will be addressed at a later date.
  - G. ATSRAC Task 6.7, which addresses wire separation requirements began with a discussion about what requirements are pertinent to maintain an aircraft's original certification and how those requirements should be communicated to maintenance and modification organizations in order to assure the original design philosophy is not compromised by maintenance practices or modifications.
  - H. ATSRAC Task 6.8, which addresses wire identification requirements, was started with a discussion that explored how major manufacturers identify wires today.
  - I. ATSRAC Task 6.9 addresses AC/ACJ requirements to support the new FAR 25 subpart H. The combined working groups reviewed existing advisory material found in FARs and JARs and discussed need for new Advisory Material to support the new subpart.
- 
- **Bottlenecks – None**
  - **Next Actions –** Continue review of FAA drafted material relating to the remaining ESHWG harmonization proposals as they become available from the FAA. Continue review and update of Advisory Circulars AC 25-10, 25-16, and Draft AC 25.1351-1 to be compatible with newly harmonized FARs and recent FAA Policy Memos and Issue Papers. Continue coordination with WSHWG to develop proposed FAR Part 25 Subpart H material for new harmonized FAR/JARs and AC/ACJs.
  - **Future Meetings –** Next meeting date has been set for January 28 – February 1, 2002, in Paris, France. This will be a joint meeting with WSHWG from ATSRAC. Future joint ESHWG/WSHWG meetings are planned for March 19 – 22, 2002, in Montreal, and June 10 – 13, 2002, in Berlin.
  - **Lessons Learned Discussion (at end of task) –** (1) Improved instructions are needed to help working groups address question #16 in the Working Group Report regarding economic impact of the proposed rule or advisory material. (2) Feedback is needed when working group submits comments to FAA drafted material to indicate FAA acceptance or other disposition of working group comments.
  - **Request for TAEIG Action –** The ESHWG has no requests for TAEIG action at this time.

# FLIGHT TEST HWG STATUS

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Information For ARAC TAEIG

November 2, 2001



# Topics

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- Current Status
- Future Tasks
- Meeting Schedule

# Current Status

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- The FTHWG has not met during 2001.
- The draft TOR for a follow-up task regarding FAR/JAR 25.177 has been provided to the FAA and JAA. The Harmonization Management Team will determine the priority for this and other proposed FTHWG tasks discussed later.
- The FTHWG completed review of the draft flight in icing NPRM and Advisory Circular. They had undergone preliminary FAA legal review in preparation for transmittal to ARAC as a rulemaking recommendation in January 2002.
- FTHWG members have also been given an opportunity to make comments regarding the corresponding JAA icing NPA.

# Future Tasks

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- FAA currently proposes to assign FTHWG the following new tasks:
  - » Minimum Maneuvering Speeds and Stall Warning for Flight in Icing Conditions (an SFAR)
  - » Handling Qualities Rating Method
  - » Stability, FAR/JAR 25.177 follow-on task
  - » Mandatory artificial Stall Warning (FAR/JAR 25.207)
  - » Fuel Jettisoning (FAR/JAR 25.1001)
- The JAA has an additional list of tasks for FTHWG.

# Meeting Schedule

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- Lack of formal publication of upcoming tasks has resulted in canceling all scheduled FTHWG meetings during 2001.
- No FTHWG meetings are scheduled for 2002 as of yet.
- The FAA anticipates that the next FTHWG task will be the icing SFAR, which would require one meeting to resolve. This is unlikely to be tasked any earlier than the March 2002 TAEIG meeting.

# *GSHWG and AAWG Report to ARAC*

December 4, 2001

Amos Hoggard  
Boeing Commercial Airplane Group

# *Discussion Issues*

- & GSHWG Membership
- & GSHWG Status Report
- & AAWG Membership
- & AAWG Status Report

# *GSHWG Membership*

Beaufils, J. Yves  
Bertrand LaFosse.  
Collins, Richard  
Comino, Giorgio  
Doeland, Wim  
Eastin, Bob  
Hoggard, Amos  
Kasowski, Andy  
Martin, Rory  
Newman, Philip

Pereira, Humberto  
Pinsard, Laurent  
Reid, Mike  
Schmidt, Hans  
Simmons, Frank  
Smith, Johnny  
Yarges, Rich

EADS-Airbus  
Dassault Aviation  
BAE Systems  
Transport Canada  
RLD, Netherlands  
FAA US  
Boeing (CHAIR)  
Cessna  
CAA, UK  
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johnny.smith@rac.ray.com  
rich.yarges@faa.gov

# *GSHWG Meetings*

- & No meetings held since June 2001
- & Meeting Cancelled October 8-12, 2001, because of September 11, 2001
- & Next Meeting December 10-14, 2001, in Seattle
- & Progress since the June meeting has been limited except for 25.571.



# *General Structures*

## *Harmonization Working Group*

- General Status Report
- FAR §25.0365(d) Status / Schedule
- FAR §25.0571 - Status / Schedule
- FAR §25.0603 -Status
- FAR §25.0631 - Status
- FAR §25.0683 - Status / Schedule

# General Status Report

## General Structures HWG

### Status Report

December 2001

Title	CFR Part 14	*Legal	*Economics	Fast Track Report	Status Since Last Report
<b>Published:</b>					
Windshields and Windows	25.775 d	In Work	NR	Complete	FR - Published for Comment
Scatter Factor	25.571	NR	NR	NR	HWG Work Complete
<b>At FAA for Publication:</b>					
Material Strength Properties and Design Values	25.613	Complete	Complete	NR	Awaiting Publication in FR
<b>At FAA for Evaluation:</b>					
Proof of Structure	25.307	Complete	Complete	Complete	FAA TE completed Draft
Casting Factors	25.621	Complete	Complete	Complete	FAA/JAA clearing internal comments
Doors	25.783	Complete	Complete	Complete	At FAA Hdqts for App.
Fuel Tank Access Covers	25.963 e/g	Complete	Complete	Complete	FAA P P has an issue
<b>To Be Submitted to FAA:</b>					
<b>In HWG:</b>					
High Altitude Flight	25.365(d)	In Work	In Work	In Work	In Work
Birdstrike	25.631, 25.775 b, 25.571 e	Under review	Under review	NR	Reviewing FAA R&D Study
Fatigue and Damage Tolerance	25.571	In Work	In Work	NR	In Work
Operational Tests	25.683	In Work	NR	Complete	In Work
Material Properties	25.603	-	-	-	New Assigned Task

\* Preliminary

4 December 2001

GSHWG/AAWG REPORT TO  
TAEIG

# FAR 25.0365(d) - High Altitude Flight

A VI AT IO N R U L E M A K I N G A D V I S O R Y C O M M I T T E E  
W O R K I N G G R O U P S T A T U S F O R M

Date: 12/04/01

Parent Issue Group ARAC - Transport Airplane and Engines Issues Group

Working Group Name Structures General Harmonization Working Group

Task Title High Altitude Flight, 25.365 (d), AC 25-20 Para 8

Harmonization Number (If Applicable)

Task Description  
Review 14 CFR 25.365(d), in particular the factors applied to the maximum relief values setting, which is used to set limits structural design load. Review FAA and Joint Aviation Authority (JAA) advisory material and paragraph 8 of Advisory Circular 25-20. In light of this review, develop a report recommending changes to harmonize this section and the corresponding JAR paragraphs, recommending new harmonizations standards, and develop related or revised advisory materials well.

Product: NP RM X AC X Other     

SC H E D U L E	F O R E C A S T	C O M P L E T E
T A S K I N G P U B L I S H E D		O c t o b e r, 2 0 0 0
W O R K P L A N A P P R O V A L	M a r c h 2 0 0 1	M a r c h 2 0 0 1
T E C H N I C A L A G R E E M E N T - R E Q U E S T D R A F T I N G S U P P O R T	O c t o b e r, 2 0 0 1	
D R A F T O F P R O D U C T R E V I E W - R E Q U E S T E C O N - L E G A L R E V I E W	D e c e m b e r 2 0 0 1	
C O M P L E T I O N O F E C O N - L E G A L R E V I E W	M a y 2 0 0 2	
R E C O M M E N D T O A R A C ( I S S U E G R O U P )	J u n e 2 0 0 2	
R E C O M M E N D T O F A A	J u l y 2 0 0 2	
P U B L I S H N O T I C E	2 <sup>nd</sup> Q t r 2 0 0 3	
P U B L I S H F I N A L	2 <sup>nd</sup> Q t r 2 0 0 4	

Status: Working Group has developed a list of technical areas where agreement is needed. The results, in addition, a collateral tasking in 25.841 that affects this activity. Some of our work will depend on how that tasking is approached. The Mechanical Controls Working Group Chair has been approached to determine the best way to interface.

Next Action: Reach Technical Agreement

Future Meeting: March 2002

4 December 2001

GSHWG/AAWG REPORT TO  
TAEIG

7

# *FAR §25.0365(d)/AC 25-20 Issues*

- & AC 25-20 Has listed a number of failure conditions to be considered.
- & A number of those conditions have no rational failure model associated with the threat (e.g. Tire Burst)
- & The GSWHW, in order to complete its work, will need some assistance from other WGs to define the failure model / threat.
- & No formal action since June 2001.

# FAR 25.571 Damage Tolerance

A VI AT IO N R U L E M A K I N G A D V I S O R Y C O M M I T T E E  
W O R K I N G G R O U P S T A T U S F O R M

Date: 12/04/01

Parent Issue Group                      ARAC - Transport Airplane and Engines Issues Group

Working Group Name                    Structures General Harmonization Working Group

Task Title                                Fatigue and Damage Tolerance 25.571

Harmonization Number (if applicable)

Task Description:    Develop harmonized 25.571 rule and advisory material.

Product:                                N P R M      X      AC      X      Other          

SC H E D U L E	F O R E C A S T	C O M P L E T E
WORK PLAN APPROVAL		July 1995
TECHNICAL AGREEMENT- REQUEST DRAFTING SUPPORT		October 1997 Rev. March 1998
Reopening to Amend 96 and AAWG DRAFT OF PRODUCE REVIEW - REQUEST ON-LEGAL REVIEW	August 1999 2 <sup>nd</sup> Quarter 2001	August 1999
COMPLETION OF ON-LEGAL REVIEW	3 <sup>rd</sup> Quarter 2001	
RECOMMEND TO ARAC (ISSUE GROUP)	December 2001	
RECOMMEND TO FAA	1 <sup>st</sup> Quarter 2002	
PUBLISHED NOTICE	2 <sup>nd</sup> Quarter 2002	
PUBLISHED FINAL	3 <sup>rd</sup> Quarter 2002	

Status:                      HWGTech. Agreem. was reached March 1998. FAA published Amend. 25-96 and AC in March 1998. The harmonized preamble has been revised in light of the new rule. HWG has reconsidered the status of its work and has agreed to reopen the harmonization effort in light of Amend 96 and the work of the AAWG and FAA. Industries desire to re-instate fail-safe requirements. Estimate of work package to be submitted has now been revised to:

1. REVISED 25.571
2. REVISED AC 25.571
3. REVISED 25.1529

New Estimated completion date: 2<sup>nd</sup> quarter 2002.

In April the GSHWG presented the work plan concept to TOGAA and gained their support of the direction of the group.

Next Action: Develop Technical Consensus - Finalize rule and AC language.

Future Meeting: Seatle December 2001

# *FAR 25.571 Commentary*

- & Following the cancellation of the October 2001 meeting, the GSHWG voted to concentrate on 25.571 to complete the working level draft at the December 2001 meeting.
- & Several conference calls have been held to work out the remaining technical issues. Some of those issues will need to be addressed face-to-face.
- & Next Steps, following consensus
  - TOGAA Review and Acceptance
  - Request for preliminary legal and economic assessment.
  - Submittal of rule making package w/ rulemaking report
- & Estimated completion 2nd Quarter 2002.

## §25.0603 *Issues*

- & On August 7, 2001, the Tasking Was Published in the Federal Register.
- & The GSHWG will begin consideration of the subject once 25.571 documents have been submitted for preliminary legal and economic review.
- & Since the GSHWG has not met since August, we have no work plan to present at this time.

# FAR 25.631 Bird Strike

AVIATION REGULATING ADVISORY COMMITTEE  
WORKING GROUPS TASKS FORM

Date: 12/04/01

Parent Issue Group: ARAC - Transport Aircraft and Engines Issues Group

Working Group Name: Structures General Harmonization Working Group

Task Title: Birds strike Damage

Harmonization Number (if Applicable): 17

Task Description: Develop new or revised requirements for the evaluation of transport category airplane structure for in-flight collision with a bird, including the size of the bird and the location of impact on the airplane (FAR 25.571, 25.631, 25.775, and other conforming changes).

Product: NPMR ☒ AC ☒ Other ☐

SCHEMULE	FORCAST	COMPLETE
WORKPLAN APPROVAL		February 1994
TECHNICAL AGREEMENT- REQUEST DRAFTING SUPPORT		October 1994
DRAFT OF PRODUCTION VIEW - REQUEST ECONOMIC REVIEW		July 7, 1995
ASSIST FAA IN COMPLETION OF UIUC R&D PROGRAM	Jan 2002	
ASSESS TECHNICAL POSITION AND SET COURSE OF ACTION	April 2002	
SUBMIT REVISED DOCUMENTS FOR ECONOMIC REVIEW	June 2002	
COMPLETION OF ECONOMIC REVIEW	Sept 2002	
RECOMMEND TO ARAC (ISSUE GROUP)	December 2002	
RECOMMEND TO FAA	First Qtr 2003	
PUBLISHED NOTICE	3 <sup>rd</sup> Qtr 2003	
PUBLISHED FINAL	3 <sup>rd</sup> Qtr 2004	

Status: FAA/JAA Position on Bird Weight has been published, FAA is currently involved with UIUC in an R&D program to develop bird populations and probability of airplane/bird encounters. Industry has agreed to assist.

Next Action: Waiting for results of the FAA sponsored R&D program

Future Meetings: As necessary

4 December 2001

GSHWG/AAWG REPORT TO  
TAEIG

12



# FAR 25.683 - Operational Tests

**AVIATION REGULATING ADVISORY COMMITTEE  
WORKING GROUPS TASKS FORM**

Date: 12/04/01

Parent Issue Group: **ARAC - Transport Aircraft and Engines Issues Group**

Working Group Name: **Structures General Harmonization Working Group**

Task Title: **Operational Tests, 25.683**

Harmonization Number (If Applicable):

Task Description: **Develop advisory material for enveloped performance fast track report.**

Product: NP RM ☒ AC ☒ Other ☐

SC HEDULE	FORECAST	COMPLETE
WORK PLAN APPROVAL		December 2000
ESTABLISH SPECIALIST SUB-TEAM	April 2001	June 2001
TECHNICAL AGREEMENT- REQUEST DRAFTING SUPPORT	October 2001	
DRAFT OF PRODUCTION VIEW - REQUEST LEGAL REVIEW	January 2002	
COMPLETION OF LEGAL REVIEW	2 <sup>rd</sup> Qtr 2002	
RECOMMEND TO ARAC (ISSUE GROUP)	3 <sup>rd</sup> Qtr 2002	
RECOMMEND TO FAA	3 <sup>rd</sup> Qtr 2002	
PUBLICATION NOTICE	4 <sup>th</sup> Qtr 2002	
PUBLISHED	4 <sup>th</sup> Qtr 2003	

Status: **HWG has determined that a subgroup of specialists is required to establish the advisory material. The HWG will assign the responsibility to this group of individuals to come up with the required AC material. The group has now been formed and will commence in the month of July. The FAA has produced Draft NPRM based on the submitted Fast Track Report**

Next Action: **Technical agreement**

Future Meetings: **No formal meetings planned**

4 December 2001

**GSHWG/AAWG REPORT TO  
TAEIG**

13

# AAWG Membership



Last Name	First Name	Representing	Member	E-mail Address
Arabi	Mary	Airborne Ex	Yes	Mary.arabi@airborne.com
Ayers	Andy	Lockheed	YES	andy.k.ayers@lmco.com
Bandle	Brent	FAA	YES	brent.bandle@faa.gov
Bristow	John	CAA -UK(JAA)	YES	john.bristow@srg.caa.co.uk
Carter	Aubrey (Co-Chair)	Delta	YES	aubrey.carter@delta-air.com
Collier	Don	ATA	YES	dcollier@air-transport.org
Evans	Wayne	United	YES	Wayne.evans@ual.com
Fenwick	Linsay	ALPA	YES	fenwick@alpa.org
Gaillardon	Jean-Michel	Airbus	YES	jean_michel.gaillardon@airbus.fr
Gopinath	Kyatsandra (Co-Chair)	Boeing	YES	Kyatsandra.gopinath@PSS.boeing.com
Harrison	Bruce	Northwest	YES	bruce.harrison@nwa.com
Heath	David	Evergreen	YES	david.heath@evergreenaviation.com
Hoggard	Amos	Boeing	NO	amos.w.hoggard@boeing.com
Knegt	Martin	Fokker	YES	martin.knegt@fokkerservices.storkgroup.com
Knight	Donn	UPS	YES	deknight@ups.com
Kuchiran	David	Continental	YES	dkuchi@coair.com
Lewis	Austin	Airbus UK	YES	austin.lewis@bae.co.uk
Lotterer	Dave	RATA	YES	david.lotterer@dc.sba.com
Martin	Gary	America West	YES	gary.martin@americawest.com
Oberdick	Jon	USAirways	YES	jober@usairways.com
Pervorse	John	Boeing	NO	john.pervorse@west.boeing.com
Petrakis	John	FAA	YES	john.petrakis@faa.gov
Phillips	Randy	American	YES	randy.phillips@amrcorp.com
Sobeck	Fred	FAA	YES	frederick.sobeck@faa.gov
Tedford	Gareth	British Airways	YES	Gareth.1.tedford@british-airways.com
Walder	Ray	IATA	YES	walder@iata.org
Yeager	Mark	FedEx	YES	mdyerger@fedex.com

# *Airworthiness Assurance Working Group*

- Current Assigned Tasks
  - March 22, 2001 Tasking RE: Multiple Complex STCs

# *December 1999 Tasking RE: WFD*

## *&* Happenings since June - WFD NPRM



- Finishing TAD Legal review.
- Letters from FAA requesting OEM intent to support the development of necessary model specific material have been issued.
  -  Development of ALS of the CAI for Pre Amendment 54 Airplanes
  -  Development of Model Specific Audit Documents.
- TAD ready to send NPRM to FAA Headquarters in December.
- No further AAWG involvement is foreseen.

# *December 1999 Tasking RE: WFD*

## *&* Happenings since June - Bridging Tasks

### ➡ Three tasks identified plus one additional issue

#### Multiple Element Damage Technical Issues

-  Develop Round Robin Problems to understand parametric relationships
-  Waterline current technology approaches for MED Problems

#### Regulator Training - Provide a core training package to the FAA for internal/external training prior to release of final rule

#### NDI R&D Initiatives - Provide input to FAA Tech Center/R&D initiatives for improved detection of probable MSD/MED situations.

#### Additional Issue - Provide assistance to FAA/JAA in review of AC 91-56 new section on mandatory modification.

### ➡ Estimated completion date - September 2002

# *March 22, 2001 Tasking RE: Multiple Complex STCs*

- & The AAWG has appointed a team of specialists from its ranks to complete the tasking.
- & A chartering statement has been drafted and approved for the group to operate.
- & A first meeting of the group was held (Gatwick August 2001)
- & The first order of business was the development of a work plan for approval and submittal to the TAEIG.
- & Information distributed during the first meeting was insufficient to determine the scope of the task.

# *March 22, 2001 Tasking RE: Multiple Complex STCs Con't*

- & The second meeting was delayed until the last part of January 2002 because of September 11, 2001
- & The meeting in January will be in Long Beach where a number of the principals from the Cargo Mod investigation reside. The group plans to debrief them on their experience to better understand the issue(s).
- & The group will then determine the scope of the task and determine the required schedule to complete.

# *Multiple Complex STCs*

## *Sub-Team*

<b>Organization</b>	<b>Representative</b>	<b>E-mail</b>
Airbus	Jacques Leborgne	Jecques.leborgne@airbus.fr
Atlantic A/W	Phillip Law	Plawatlantic@netscape.co.uk
BA	Gareth Tedford	Gareth.1.tedford@british-airways.com
BAE Systems	Austin Lewis	Austi.lewis@baesystems.com
Boeing	Amos Hoggard	Amos.w.hoggard@boeing.com
Boeing	Jerry Smets	Jerry.smets@west.boeing.com
CAA-UK	George Zografos	George.zografos@srg.caa.co.uk
Continental A/L	Dave Kuchiran	Dkuchi@coair.com
Delta Air Lines	Aubrey Carter	Aubrey.carter@delta-air.com
DGAC	Thomas Levecque	LEVECQUE_Thomas@sfact.dgac.fr
FAA	Brent Bandlely	Brent.bandley@faa.gov
Federal Express	Dave Horne	Dahorne@fedex.com
Gulfstream	James Burd	James.burd@gulfaero.com
IATA	Donald VanDyke	VANDYKED@iata.org
JAA	John Bristow	John.bristow@srg.caa.co.uk
KLM	Bert Hoogeland	Bert.hoogeland@td.klm.nl
UPS	Keith Stehman	Kstehman@ups.com
US Airways	Jon Oberdick	Jobber@usairways.com



# *Third party STC Holders*

& The AAWG continues to search for a Third Party STC Holder to join in the deliberations.

- Pemco Declined
- Lockheed Declined
- We are currently investigating SIE, Matt Creger.

**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 December 4, 2001, beginning at 8:30 a.m. Arrange for oral presentations by November 30.

**ADDRESSES:** National Transportation Safety Board Room and Conference Center, Conference Room A&B, 429 L'Enfant Plaza, SW., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Effie M. Upshaw, Office of Rulemaking, ARM-209, FAA, 800 Independence Avenue, SW., Washington, DC 20591, Telephone (202) 267-7626, FAX (202) 267-5075, or e-mail at [effie.upshaw@faa.gov](mailto:effie.upshaw@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 December 4, in Washington, DC.

The agenda will include:

- Opening Remarks
- FAA Report
- Joint Aviation Authorities Report
- Transport Canada Report
- Executive Committee Report
- Harmonization Management Team Report
- ARAC Tasking Priorities Discussion
- Design for Security Harmonization Working Group (HWG) Report
- Ice Protection HWG Report
- Loads & Dynamics HWG Report
- Engine HWG Report and Approval
- Mechanical Systems HWG Report
- General Structure HWG Report
- Airworthiness Assurance Working Group Report
- Human Factors HWG Report
- Electrical Systems HWG Report
- System Design and Analysis Report
- Written working group reports may be provided for the following HWG's:

Electromagnetic Effects, Flight Test, Powerplant Installation, Seat Test, Flight Guidance, Flight Control, and Avionics Systems. An update also may be provided for the Extended Range with Two-Engine Aircraft Tasking.

The Engine HWG plans to seek approval of its bird management recommendations.

Attendance is open to the public, but will be limited to the availability of meeting room space and telephone lines. Details for participating in the teleconference will be available after November 28 by contacting the person listed in the **FOR FURTHER INFORMATION CONTACT** section. Callers outside the Washington metropolitan area will be responsible for paying long distance charges.

The public must make arrangements by November 30 to present oral statements at the meeting. Written statements may be presented to the committee at any time by providing 25 copies to the Assistant Executive Director for Transport Airplane and Engine issues or by providing copies at the meeting. Copies of the documents to be presented to ARAC for decision or as recommendations to the FAA may be made available by contacting the person listed under the heading **FOR FURTHER INFORMATION CONTACT**.

If you are in need of assistance or require a reasonable accommodation for the meeting or meeting documents, please contact the person listed under the heading **FOR FURTHER INFORMATION CONTACT**. 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 November 20, 2001.

**Tony F. Fazio,**

*Director, Office of Rulemaking.*

[FR Doc. 01-29396 Filed 11-26-01; 8:45 am]

**BILLING CODE 4910-13-M**

**DEPARTMENT OF TRANSPORTATION****Research and Special Programs Administration****Office of Hazardous Materials Safety; Notice of applications for exemptions**

**AGENCY:** Research and Special Programs Administration, DOT.

**ACTION:** List of Applicants for Exemptions.

**SUMMARY:** In accordance with the procedures governing the application for, and the processing of, exemptions from the Department of Transportation's Hazardous Materials Regulations (49 CFR part 107, subpart B), notice is hereby given that the Office of Hazardous Materials Safety has received the applications described herein. Each mode of transportation for which a particular exemption is requested is indicated by a number in the "Nature of Application" portion of the table below as follows: 1—Motor vehicle, 2—Rail freight, 3—Cargo vessel, 4—Cargo aircraft only, 5—Passenger-carrying aircraft.

**DATES:** Comments must be received on or before December 27, 2001.

**ADDRESS COMMENTS TO:** Records Center, Research and Special Programs Administration, U.S. Department of Transportation, Washington, DC 20590.

Comments should refer to the application number and be submitted in triplicate. If confirmation of receipt of comments is desired, include a self-addressed stamped postcard showing the exemption application number.

**FOR FURTHER INFORMATION CONTACT:** Copies of the applications (See Docket Number) are available for inspection at the New Docket Management Facility, PL-401, at the U.S. Department of Transportation, Nassif Building, 400 7th Street, SW., Washington, DC 20590 or at <http://dms.dot.gov>.

This notice of receipt of applications for new exemptions is published in accordance with Part 107 of the Federal hazardous materials transportation law (49 U.S.C. 5117(b); 49 CFR 1.53(b)).

Issued in Washington, DC, on November 20, 2001.

**J. Suzanne Hedgepeth,**

*Director, Office of Hazardous Materials, Exemptions and Approvals.*

# EHWG STATUS REPORT TO TAEIG

- EHWG HAS TWO ACTIVE TASKS
  - BIRD INGESTION
  - CRITICAL PARTS
- BOTH TASKINGS WERE PUBLISHED IN FEDERAL REGISTER ON 7 NOV 01
- TOR'S WERE AGREED IN MID 2000

# EHWG STATUS REPORT TO TAEIG

## BIRD INGESTION, BACKGROUND:

- PART 33 AMENDMENT 19, (1998) REVISED BIRD INGESTION STANDARDS
  - LARGE BIRD STANDARD NOT HARMONIZED.
- SUBSEQUENT TOR (PHASE II) DIRECTS EHWG TO:
  - FURTHER DEFINE THE CURRENT BIRD THREAT
  - RECONSIDER FLOCKING BIRD REQUIREMENTS FOR BIRDS > 2.5 LBS.
  - RECOMMEND CHANGES TO THE AMENDMENT 19 RULE AND ADVISORY MATERIAL AS APPROPRIATE
  - CONSIDER HIGH SPEED OPERATIONS AT LOW ALTITUDES
  - (b)(iv) “ASSESS THE AFFECT OF CURRENT BIRD THREAT STATISTICS UPON THE EXISTING FLEET. IDENTIFY AND PROVIDE RECOMMENDATIONS TO THE FAA AND JAA FOR AREAS OF STUDY, OTHER THAN ENGINE CERTIFICATION REQUIREMENTS, WHERE POTENTIAL EXISTS TO SIGNIFICANTLY MITIGATE RISKS ASSOCIATED WITH ENGINE BIRD INGESTION.”

# EHWG STATUS REPORT TO TAEIG

## BIRD INGESTION, BACKGROUND:

EHWG “BIRDS II” TASK GROUP FORMED (SUB SET OF EHWG, PLUS INGESTION EXPERTS) TO ADDRESS TOR REQUIREMENTS

- EHWG TASK GROUP MEMBERSHIP:
  - DICK PARKER            P&W, CHAIRMAN
  - ORGANIZATIONS REPRESENTED:
    - ALPA, CAA, DGAC, FAA, GE, HONEYWELL, P&W
    - PWC, RR, SNECMA, TRANSPORT CANADA

# EHWG STATUS REPORT TO TAEIG

## BIRD INGESTION STATUS:

- INGESTION DATA FOR LAST 10 YEARS GATHERED AND ANALYZED TO UNDERSTAND CURRENT THREAT(S)
- IDENTIFIED AREA OF CONCERN REGARDING THREAT TO LARGE ENGINES (>6000 SQ INCH INLET) FROM LARGE FLOCKING BIRDS
- IDENTIFIED NEED FOR RUN-ON CAPABILITY FOR LARGE ENGINES AFTER INGESTION OF LARGE FLOCKING BIRD
- GENERAL AGREEMENT REACHED ON RULE AND AC MATERIAL FOR THIS COMBINATION OF ENGINE AND BIRD SIZE
- ANTICIPATE EHWG TECHNICAL AGREEMENT BY END OF YEAR
- EFFORTS NOW FOCUSED ON SMALLER ENGINE SIZES, UTILIZING DATA BASED APPROACH

*working on  
me  
12/18*

# EHWG STATUS REPORT TO TAEIG

## BIRD INGESTION STATUS, CONTINUED:

- TASK GROUP MEETING SCHEDULE:
  - 5, 6 DEC 2001
  - FEBRUARY, 2002
- EHWG WILL MEET 9, 10, 11 APRIL TO REVIEW PRODUCT OF TASK GROUP

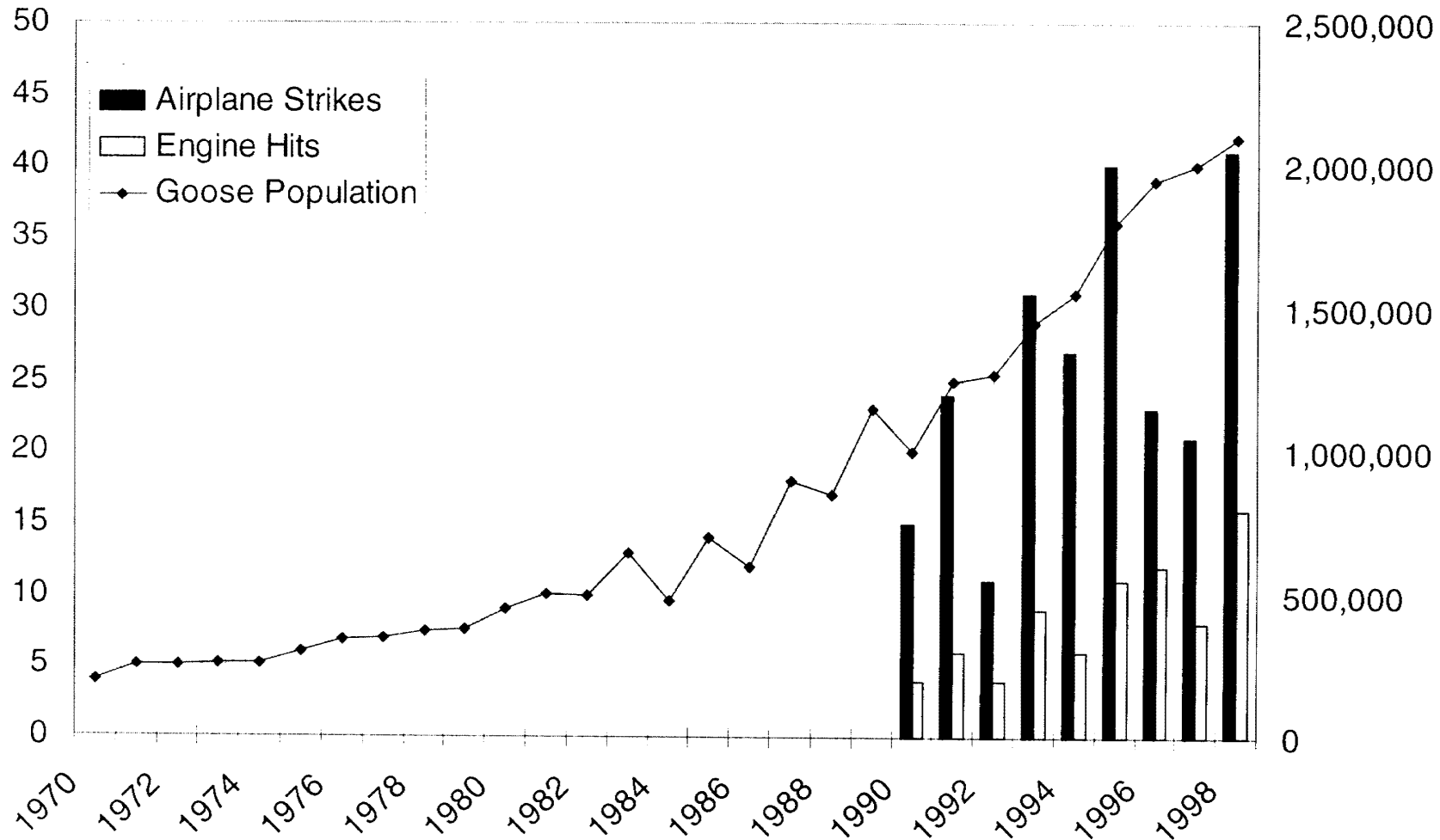
# EHWG STATUS REPORT TO TAEIG

## BIRD INGESTION STATUS:

- TASK GROUP HAS PRODUCED A SET OF RECOMMENDATIONS IN RESPONSE TO REQUIREMENT (b)(iv)
- ACCEPTANCE OF RECOMMENDATIONS BY TAEIG IS REQUESTED



## Resident Canada Goose Population in N. America and Strikes/Eng Hits in Combined GE/CFMI and PW Fleet



Source: FAA/USDA, P&W, & GE Combined Data

4 DEC 01

# Bird Strike Committee USA/Canada

## Aug, 2000

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- **Goose population out pacing our infrastructure to react**
  - Population will double in 5-7 years
- **Revising engine certification not enough**
  - New engines, new aircraft, >20 years
  - 14,000 legacy aircraft, flying >16,000,000 flights per year, will be flying for >20 yrs

# BIRD CONTROL RECOMMENDATIONS TO TAEIG

## RECOMMENDATIONS

The following recommendations address concerns regarding the hazard to commercial transport aircraft from large flocking birds.

- ICAO and national regulators should establish regulations that require airports to develop and implement a bird control plan that includes control of the numbers of flocking bird species both on and adjacent to their property. National laws should be provided by the countries concerned to enable airports to carry out these activities.
- National regulators should prevent the establishment of sites that are attractive to birds on, or in the vicinity of, airports.
- Incentives need to be strengthened for airport operators and local authorities to take the necessary actions to reduce/eliminate hazardous wildlife and hazardous wildlife attractants on or near their airport.

# BIRD CONTROL RECOMMENDATIONS TO TAEIG

## RECOMMENDATIONS, CONTINUED

The following recommendations address concerns regarding the hazard to commercial transport aircraft from large flocking birds. (continued)

- Aviation safety regulators need to lead an effort to inform the public of the hazard to commercial air safety caused by wildlife.
- Countries should establish mechanisms to review populations of flocking bird species over 4 lbs (1.8 kg) and then to manage populations in consultation with conservation and other interests to levels consistent with acceptable flight safety standards.

# EHWG STATUS REPORT TO TAEIG

## CRITICAL PARTS:

- TOR DIRECTS EHWG TO DEVELOP HARMONIZED RULE AND AC FOR FAR 33.14 AND JAR-E FOR LIFE MANAGEMENT OF CRITICAL PARTS
  - LIFING METHODOLOGY
  - MANUFACTURING CONTROLS
  - SERVICE CONTROLS

# EHWG STATUS REPORT TO TAEIG

## CRITICAL PARTS, STATUS:

- EHWG CRITICAL PARTS TASK GROUP FORMED (SUB SET OF EHWG, PLUS LIFING EXPERTS) TO ADDRESS TOR REQUIREMENTS
- FIVE MEETINGS HAVE BEEN HELD
- CURRENT JAR-E 515 IS BASIS OF NEW RULE
- RULE AND AC MATERIAL HAS BEEN DRAFTED BY TASK GROUP
- SEVERAL MAJOR ISSUES EXIST

# EHWG STATUS REPORT TO TAEIG

## CRITICAL PARTS, STATUS:

- EHWG REVIEWED DRAFT RULE AND AC AT OCT. MEETING
- COMMENTS FROM EHWG ARE BEING ADDRESSED BY TASK GROUP
- THIS SUBJECT IS MAJOR TOPIC ON EHWG AGENDA FOR 9-11 APRIL MEETING
- TASK GROUP NEXT MEETING IS 17 -19 APRIL, & WILL ADDRESS OUTCOME OF EHWG REVIEW *- assume if working grp will have a product*

### ARAC Acceptance of Task

ARAC accepted the task and assigned the task to the Powerplant Installation Harmonization Working Group, Transport Airplane and Engine Issues. The working group serves as staff to ARAC and assists in the analysis of assigned tasks. ARAC must review and approve the working group's recommendations. If ARAC accepts the working group's recommendations, it will forward them to the FAA.

### Working Group Activity

The Powerplant Installation Harmonization Working Group must comply with the procedures adopted by ARAC. As part of the procedures, the working group must:

1. Recommend a work plan for completion of the task, including the rational supporting such a plan for consideration at the next meeting of the ARAC on transport airplane and engine issues held following publication of this notice.
2. Give a detailed conceptual presentation of the proposed recommendations prior to proceeding with the work stated in item 3 below.
3. Draft the appropriate documents and required analyses and/or any other related materials or documents.
4. Provide a status report at each meeting of the ARAC held to consider transport airplane and engine issues.

### Participation in the Working Group

The Powerplant Installation Harmonization Working Group is composed of technical experts having an interest in the assigned task. A working group member need not be a representative or a member of the full committee.

An individual who has expertise in the subject matter and wishes to become a member of the working group should write to the person listed under the caption **FOR FURTHER INFORMATION CONTACT** expressing that desire. The individual should describe his or her interest in the task, and state the expertise he or she would bring to the working group. We must receive all request by December 7, 2001. The requests will be reviewed by the assistant chair, the assistant executive director, and the working group co-chairs. Individuals will be advised whether or not their request can be accommodated.

Individuals chosen for membership on the working group must represent their aviation community segment and actively participate in the working group (e.g., attend all meetings, provide written comments when requested to do

so, etc.). The must devote the resources necessary to support the working group in meeting any assigned deadlines. Members must keep their management chain and those they may represent advised of working group activities and decisions to ensure that the proposed technical solutions do not conflict with their sponsoring organization's position when the subject being negotiated is presented to ARAC for approval. Once the working group has begun deliberations, members will not be added or substituted without the approval of the assistant chair, the assistant executive director, and the working group co-chairs.

The Secretary of Transportation determined that the formation and use of the ARAC is necessary and in the public interest in connection with the performance of duties imposed on the FAA by law.

Meetings of the ARAC will be open to the public. Meetings of the Powerplant Installation Harmonization Working Group will not be open to the public, except to the extent that individuals with an interest and expertise are selected to participate. The FAA will make no public announcement of working group meetings.

Issued in Washington, DC, on November 2, 2001.

**Anthony F. Fazio,**

*Executive Director, Aviation Rulemaking Advisory Committee.*

[FR Doc. 01-28120 Filed 11-8-01; 8:45 am]

**BILLING CODE 4910-13-M**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### RTCA Special Committee 198: Next-Generation Air/Ground Communications System (NEXCOM)

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of RTCA Special Committee 198 meeting.

**SUMMARY:** The FAA is issuing this notice to advise the public of a meeting of RTCA Special Committee 198: Next-Generation Air/Ground Communications System (NEXCOM).

**DATES:** The meeting will be held on November 28-29, 2001, starting at 9 a.m.

**ADDRESSES:** The meeting will be held at RTCA, 1828 L Street, Suite 805, Washington, DC 20036.

**FOR FURTHER INFORMATION CONTACT:** RTCA Secretariat, 1828 L Street, NW., Suite 805, Washington, DC 20036;

telephone (202) 833-9339; fax (202) 833-9434; Web site <http://www.rtca.org>.

**SUPPLEMENTARY INFORMATION:** Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463, 5 U.S.C., Appendix 2), notice is hereby given for a Special Committee 198 meeting. The agenda will include:

- November 28:
  - Working Group 3, Voice Data Link (VDL)-3 Principles of Operation.
- November 29:
  - Opening Plenary Session (Welcome and Introductory Remarks, Introduction of Working Group Chairs and Secretaries, Review of Minutes of Previous Meeting).
  - Program Management Committee Actions; SC-198 Terms of Reference.
  - Working Group 3 Status Report.
  - Closing Plenary Session (Date and Place of Next Meeting).

Attendance is open to the interested public but limited to space availability. With the approval of the chairmen, members of the public may present oral statements at the meeting. Persons wishing to present statements or obtain information should contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section. Members of the public may present a written statement to the committee at any time.

Issued in Washington, DC, on November 1, 2001.

**Jane P. Caldwell,**

*Program Director, System Director, System Engineering Resource Management.*

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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### RTCA Special Committee 189/ EUROCAE Working Group 53: Air Traffic Services (ATS) Safety and Interoperability Requirements

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of RTCA Special Committee 189/EUROCAE Working Group 53 meeting.

**SUMMARY:** The FAA is issuing this notice to advise the public of a meeting of RTCA Special Committee 189/ ERUOCAE Working Group 53: Air Traffic Services (ATS) Safety and Interoperability Requirements.

**DATES:** The meeting will be held December 3-7, 2001 starting at 9 a.m.

**ADDRESSES:** The meeting will be held at RTCA, Inc., 1828 L Street, NW., Suite 805, Washington, DC 20036.