

Task #6

Wiring System HWG Report #3 January 24, 2002 Rev 2

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

WS-11

DATE: January 23, 2002

WORKING GROUP / TASK 6:	CO-CHAIRS: Jean-Luc BALLENGHIEN AIRBUS Vidmantas VARIAKOJIS BOEING		
MEMBERS:	FAA Steve Slotte JAA/CAA Dave Tudor JAA/LBA Peter Teichert JAA/DGAC Jerome Bruel Airbus Christian Garros Airbus Dominique Mazzarino ALPA Ken Elias Boeing Ashok Bhattacharya Boeing Issa Ghoreishi Bombardier Petar Glamoclija	British Airways David Harrison Cessna Michael Richardson Dassault Aldo Pezzetta Delta Rob Lyon Kelowna Flightcraft Tony Fishlock SAE Dave Allen Thales Avionics Patrick Ryan Transport Canada Jean Cartier Tyco Electronics Walter Cinibulk	
PAST MEETINGS:	<u>DATE</u>	<u>LOCATION</u>	
	March 28, 2001 May 16-17, 2001 June 12-14, 2001 August 21-24, 2001 November 6-9, 2001 December 18/20 & January 15/17	Seattle (ATSRAC) BAE Filton Bristol (ARAC ESHWG) Boeing, Long Beach (WSHWG) Airbus, Toulouse (ESHWG/WSHWG) Boeing, Seattle (ESHWG/WSHWG) Boeing LB/AI Toulouse ('Editors' Only)	
FUTURE MEETINGS:	January 28-Feb.1, 2002 March 18-22, 2002 June 10-14, 2002	Dassault, Paris (ESHWG/WSHWG) Bombardier, Montreal (ESHWG/WSHWG) LBA, Berlin (ESHWG/WSHWG)	

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

OVERVIEW:

<u>SUB-TASK#</u>	<u>DESCRIPTION</u>	<u>ESTIMATED COMPLETION DATE</u>	<u>STATUS (RED/GREEN/YELLOW)</u>
TASK 6.1	Establish a Harmonization Working Group (HWG)	June 2001	Green/Done
TASK 6.2	Develop Coordination Process with ARAC	June 2001	Green/Done
TASK 6.3	Develop Coordination with other ATSRAC WG's	July 2001	Green/Done
TASK 6.4	Combine current FAR/JAR's		
	Start	June 2001	Green
	Technical agreement	January 2002	Yellow
	Final agreement	March 2002	Green
TASK 6.5	Address aging characteristics in new wire systems rule		
	Start	June 2001	Green
	Technical agreement	November 2001	Yellow →Green.
	Final agreement	March 2002	Green.
TASK 6.6	Wire System Safety Assessment Requirements		
	Start	June 2001	Green
	Technical agreement	January 2002	Yellow
	Final agreement	March 2002	Green
TASK 6.7	Wire Separation Requirements		
	Start	June 2001	Green
	Technical agreement	November 2001	Yellow →Green
	Final agreement	March 2002	Green
TASK 6.8	Wire Identification Requirements		
	Start	June 2001	Green
	Technical agreement	November 2001	Yellow →Green
	Final agreement	January 2002	Green

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TASK 6.9 Advisory Material for the new Wire Systems Rule

Start	August 2001	Green
Technical agreement	January 2002	Green
Final agreement	March 2002	Green
Final ATSRAC Report	June 29, 2002	Green

Assumption: If there is an applicable existing JAR/ACJ and there is **NOT** a FAR/AC, then we will adopt the JAR/ACJ.

Assistance Needed: None at this Time

Comments:

1. As of now, at least 24 persons will be attending our next meeting on 1/28/02
2. Significant changes and/or accomplishments are “highlighted”

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

Working Group/Task: WSHWG #6

Co-Chairs: Jean-Luc Ballenghien
Vid Variakojs

Date: January 23, 2002

Sub-Task # 6.4	Description: Combine current wire system regulations into one sub-part
Concept: Review the existing FAR/JAR paragraphs, ATSRAC and ARAC recommendations related to wire systems. Combine the paragraphs as required. Make recommendations to the ATSRAC.	
Work Plan: The WSHWG will form a Task Group for this task. The Task Group will work (via e-mail, telecons, faxes, etc) on their assigned task) and bring the material to the WSHWG plenary meetings for discussion and acceptance. Coordinate the effort with the ARAC ESHWG by enlisting their members to participate in the task during the concurrently held meetings. Coordinate with the ATSRAC Task Groups 7, 8, and 9 by providing group meeting minutes and reports as required.	
Deliverables: Proposed changes and combined regulations to FAR/JAR will be recommended. The output will be a document in the ATSRAC Report format. A preliminary version suitable for preliminary legal and economic review will be delivered in December, 2001. The Final Report will be delivered in June 2002.	
Status: Task Group was established and Task Leader identified (Steve Slotte). The work was continued during the ESHWG/WSHWG concurrent meeting of November, 2001. Less progress accomplished than it was planned and expected. It was hoped to come to a final agreement in November. This was not achieved. Only three members of ESHWG were able to attend. Ad Hoc "Editors" meeting was held in December 18/20, '01. "Subpart H - Electrical Wiring Interconnect System" was drafted and distributed to the combined ESHWG/WSHWG membership for comments. In addition, a document recommending changes to the to existing Part 25 requirements was also written. We did miss our commitment for a preliminary version delivery in December; however, we will strive to come to a technical agreement in the January '02 meeting and the final agreement during the March '02 meeting.	
Roadblocks: No real roadblocks except time and schedule.	
Assistance Needed: None at this time.	

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

Working Group/Task: WSHWG #6

Co-Chairs: Jean-Luc Ballenghien
Vid Variakojis

Date: January 23, 2002

Sub-Task #6.5	Description: Identify design requirements to mitigate problems of aging in wire systems
Concept: The WSHWG will identify requirements for the FAR 25/JAR 25 new wire system rule taking into account known mitigation procedures that will decrease problems due to aging. These requirements will be based on the ATSRAC recommendations contained in the Intrusive Inspection Report, Chapter 7, dated January 2001.	
Work Plan: The WSHWG will form a Task Group for this task. The Task Group will work (via e-mail, telecons, faxes, etc.) on their assigned task and bring the material to the WSHWG plenary meetings for discussion and acceptance. Coordinate with the ATSRAC Task Groups 7 and 9 by providing group meeting minutes and reports as required.	
Deliverables: New FAR/JAR regulations will be recommended. The output will be a document in the ATSRAC Report format. A preliminary version suitable for preliminary legal and economic review will be delivered in February, 2002. The Final Report will be delivered in June 2002.	
Status: Task Group was established and task leader was identified (Ashok Bhattacharya). Preliminary review of ATSRAC Intrusive Inspection Report Chapter 7 recommendations was accomplished. The relevant recommendations were identified and assigned to respective sections, other tasks, other ATSRAC working groups or deemed not applicable (e.g. R&D effort). To date, we did not receive any comments from other working groups; however, other WG's are being asked to give their inputs through integration effort of Mike Nancarrow. We have completed our inputs into the integrated "Chapter 7" matrix. We will miss our commitment for a preliminary version delivery in February; however, we will strive to come to a technical agreement in the January '02 meeting and the final agreement during the March '02 meeting. Ad Hoc "editors" meeting held on January 15/17. The final report will be done in June 2002.	
Roadblocks: None known at present time.	
Assistance Needed: None required at this time	

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

Working Group/Task WSHWG #6

Co-Chairs: Jean-Luc Ballenghien

Vid Variakojs

Date: January 23, 2002

Sub-Task #6.6	Description: Identify requirements for wire systems safety assessments
Concept: The WSHWG will review FAR 25.1309, AC 25.1309-1A/B, and corresponding JAR-25 material and submit a recommendation on whether particular means of compliance with FAR 25.1309 should be included in the new wire systems rule.	
Work Plan: The WSHWG will form a Task Group for this task. The Task Group will work (via e-mail, telecons, faxes, etc) on their assigned task) and bring the material to the WSHWG plenary meetings for discussion and acceptance. Coordinate the effort with the ARAC ESHWG by enlisting their members to participate in the task during the concurrently held meetings. Coordinate with the ATSRAC Task Groups 7 and 9 by providing group meeting minutes and reports as required.	
Deliverables: Proposed changes and new FAR/JAR regulations will be recommended. The output will be a document in the ATSRAC Report format. A preliminary version suitable for preliminary legal and economic review will be delivered in February 2002. The Final Report will be delivered in June 2002.	
Status: Task Group was established and task leader was identified (Steve Slotte). The work was not discussed during the ESHWG/WSHWG concurrent meeting of August, 2001. Just ran out of time in a three and a half day meeting! Ad Hoc "Editors" meetings were held in December 18/20, '01. Preliminary version was drafted and distributed to the combined ESHWG/WSHWG members. We will miss our commitment for a preliminary version delivery in February; however, we will strive to come to a technical agreement in the January '02 meeting and the final agreement during the March '02 meeting.	
Roadblocks: None known at this time.	
Assistance Needed: None required at this time.	

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

Working Group/Task: WSHWG #6

Co-Chairs: Jean-Luc Ballenghien
Vid Variakojis

Date: January 23, 2002

Sub-Task #6.7	Description: Identify requirements for wire separation
Concept: The WSHWG will review existing FAR 25/JAR 25 requirements for wire separation and determine if a new comprehensive wire separation regulation (in addition to the existing 25.1353 requirement) should be included in the new wire system rule sub-part.	
Work Plan: The WSHWG will form a Task Group for this task. The Task Group will work (via e-mail, telecons, faxes, etc) on their assigned task) and bring the material to the WSHWG plenary meetings for discussion and acceptance. Coordinate the effort with the ARAC ESHWG by enlisting their members to participate in the task during the concurrently held meetings. Coordinate with the ATSRAC Task Groups 7 and 9 by providing group meeting minutes and reports as required.	
Deliverables: Proposed changes and new FAR/JAR regulations will be recommended. The output will be a document in the ATSRAC Report format. A preliminary version suitable for preliminary legal and economic review will be delivered in February, 2002. The Final Report will be delivered in June 2002.	
Status: Task Group was established and task leader was identified (Issa Ghoreishi). Preliminary review of FAR/JAR paragraphs was accomplished. The relevant paragraphs were identified. The work was continued during the ESHWG/WSHWG concurrent meeting of November, 2001. Less progress than anticipated. Work continued via e-mail. Preliminary version will not be ready in February '02. Ad Hoc "Editors" meeting in January 15/17 to mitigate the schedule.	
Roadblocks: None known at present time.	
Assistance Needed: None at this time.	

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

Working Group/Task: WSHWG #6

Co-Chairs: Jean-Luc Ballenghien

Vid Variakojs

Date: January 23, 2002

Sub-Task #6.8	Description: Identify requirements for wire identification
Concept: The WSHWG will examine the need for wire identification and provide a recommendation on effects due to system failure of any particular system whose wire is contained in a given wire the need for special wire and/or wire bundle identification. This is to be based on airplane level bundle.	
Work Plan: The WSHWG will form a Task Group for this task. The Task Group will work (via e-mail, telecons, faxes, etc.) on their assigned task) and bring the material to the WSHWG plenary meetings for discussion and acceptance. Coordinate with the ATSRAC Task Groups 7 and 9 by providing group meeting minutes and reports as required.	
Deliverables: New FAR/JAR regulations will be recommended. The output will be a document in the ATSRAC Report format. A preliminary version suitable for preliminary legal and economic review will be delivered in February, 2002. The Final Report will be delivered in June 2002.	
Status: Task Group was established and task leader was identified (Jean-Luc Ballenghien). Preliminary document will not be delivered in January '02. The work was continued and discussed during the WSHWG meeting of November, 2001. Progress was achieved to keep the task moving. Much background information is collected and documented. We will miss our commitment for delivery of preliminary version in February. Started drafting the FAR/JAR and AC/ACJ wording during Ad Hoc "editors" meeting of January 14/17.	
Roadblocks: None known at this time.	
Assistance Needed: None required at this time.	

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

Working Group/Task WSHWG #6

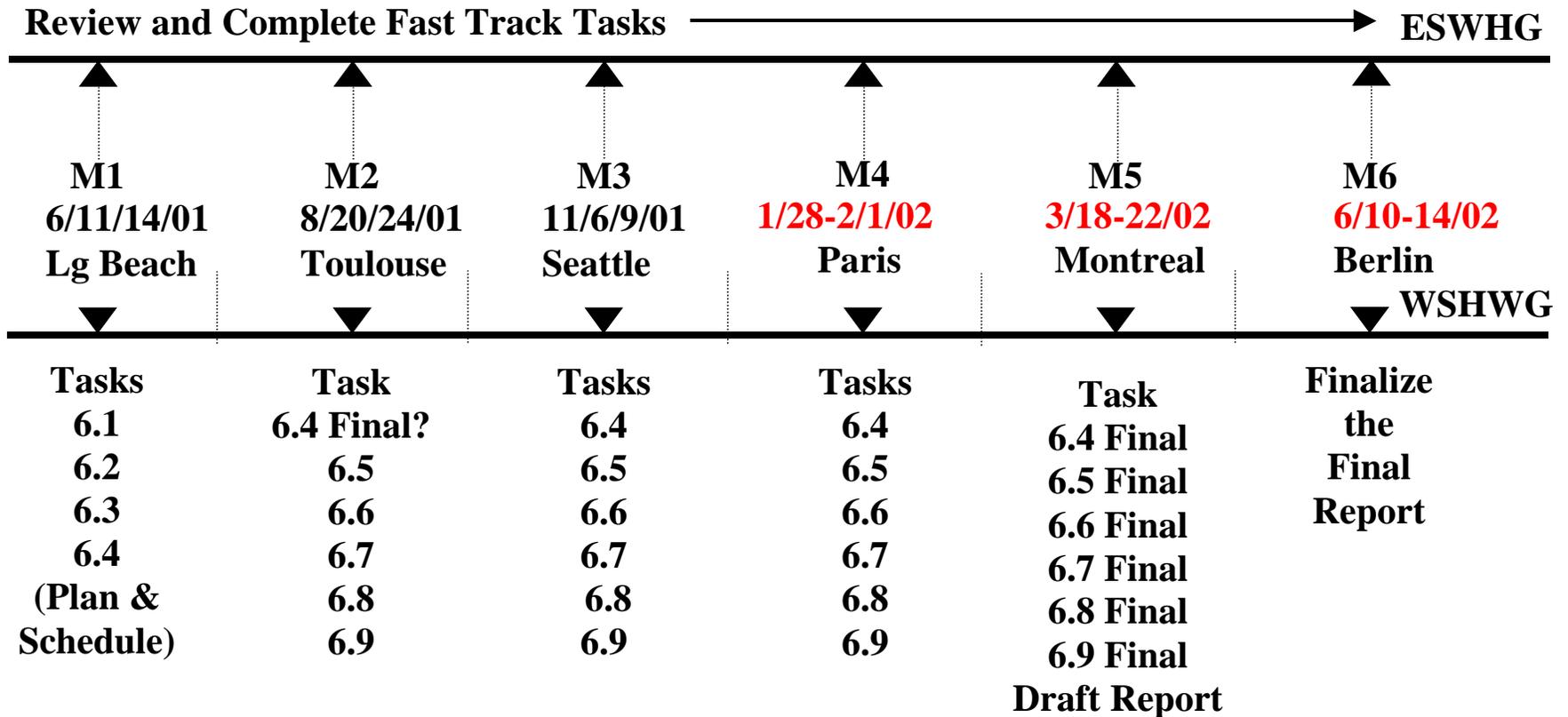
Co-Chairs: Jean-Luc Ballenghien

Vid Variakojs

Date: January 23, 2002

Sub-Task #6.9	Description: Recommend advisory guidance material for the new wire systems FAR/JAR sub-part
Concept: The WSHWG will provide recommended means of compliance with the requirements established from tasks 6.4 through 6.8. Existing advisory material may already provide acceptable means of compliance. If so, the WSHWG will identify where this guidance exists. This will be accomplished through a review of existing advisory material, guidelines and policies regarding the design and installation of wiring systems, as well as related ARAC recommendations. Based on this review, a recommendation will be made to identify necessary changes considering the aging effects on wiring as noted in the previous recommendations submitted by ATSRAC, and in particular the Intrusive Inspection report	
Work Plan: The WSHWG will form a Task Group for this task. The Task Group will work (via e-mail, telecons, faxes, etc) on their assigned task) and bring the material to the WSHWG plenary meetings for discussion and acceptance. Coordinate the effort with the ARAC ESHWG by enlisting their members to participate in the task during the concurrently held meetings. Coordinate with the ATSRAC Task Groups 7 and 9 by providing group meeting minutes and reports as required.	
Deliverables: New AC/ACJ's will be recommended. The output will be a document in the ATSRAC Report format. A preliminary version suitable for preliminary legal and economic review will be delivered in April, 2002. The Final Report will be delivered in June 2002.	
Status: Task Group was established and Task Leader identified (Dave Tudor). The work was continued via e-mail and during the ESHWG/WSHWG concurrent meeting of November, 2001. A working document of 40 pages was produced. The output of this task depends upon timely completion of tasks 6.4→6.8.	
Roadblocks: None known at this time.	
Assistance Needed: None required at this time.	

Timeline Summary



- Submit recommendations to FAA as they are completed
- All WSHWG reports must be ready by the July 2002 ATSRAC meeting