

Task #6

Wiring System HWG Report

Document WS-11

July 25, 2001

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

WS-11

DATE: July 24, 2001

WORKING GROUP / TASK 6:		CO-CHAIRS: Jean-Luc BALLENGHIEN AIRBUS Vidmantas VARIAKOJIS BOEING	
MEMBERS:			
FAA	Steve Slotte	British Airways	David Harrison
JAA/CAA	Dave Tudor	Cessna	Michael Richardson
JAA/LBA	Peter Teichert	Dassault	Aldo Pezzetta
JAA/DGAC	Jerome Bruel	Delta	Rob Lyon
Airbus	Christian Garros	Kelwona	Tony Fishlock
Airbus	Dominique Mazzarino	SAE	Dave Allen
ALPA	Ken Elias	Thales Avionics	Patrick Ryan
Boeing	Ashok Bhattacharya	Transport Canada	Kandanchatha Narayanan
Boeing	Issa Ghoreishi	Tyco Electronics	Walter Cinibulk
Bombardier	Petar Glamoclija		
		<u>DATE</u>	<u>LOCATION</u>
PAST MEETINGS:	March 28, 2001	Seattle (ATSRAC)	
	May 16-17, 2001	BAE Filton Bristol (ARAC ESHWG)	
	June 12-14, 2001	Boeing, Long Beach (WSHWG)	
FUTURE MEETINGS:	August 21-24, 2001	Airbus, Toulouse	(ESHWG/WSHWG)
	November 6-9, 2001	Boeing, Seattle	(ESHWG/WSHWG)
	January , 2002	Dassault, Paris	(ESHWG/WSHWG)
	March, 2002	Bombardier, Montreal	(ESHWG/WSHWG)
	June, 2002	Europe, TBD	(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
TASK 6.3	Develop Coordination with other ATSRAC WG's	July 2001	Green
TASK 6.4	Combine current FAR/JAR's		
	Start	June 2001	Green
	Technical agreement	August 2001	Green/Yellow
	Final agreement	November 2002	Yellow
TASK 6.5	Address aging characteristics in new wire systems rule		
	Start	June 2001	Green
	Technical agreement	November 2001	Green/Yellow
	Final agreement	January 2002	Yellow
TASK 6.6	Wire System Safety Assessment Requirements		
	Start	June 2001	Green
	Technical agreement	November 2001	Green/Yellow
	Final agreement	January 2002	Yellow
TASK 6.7	Wire Separation Requirements		
	Start	June 2001	Green
	Technical agreement	November 2001	Green/Yellow
	Final agreement	January 2002	Yellow
TASK 6.8	Wire Identification Requirements		
	Start	June 2001	Green
	Technical agreement	November 2001	Green/Yellow
	Final agreement	January 2002	Yellow

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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	Yellow
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: ATSRAC guidance in defining “Wire System”. Does wire system includes such wiring as:

- Inside galley harness
- Inside lavatories
- Inside “black boxes”
- Inside fuel tanks (Other group working it?)
- Coax cables
- Ethernet (data bus)
- Optical

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

Working Group/Task : WSHWG #6

Co-Chairs: Jean-Luc Ballenghien

Vid Variakojs

Date: July 25, 2001

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 new 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). Preliminary review of some 23 candidate FAR/JAR paragraphs was accomplished. The relevant paragraphs were identified and assigned to respective sections, other tasks, or deemed not applicable. The work will be continued via e-mail and during the ESHWG/WSHWG concurrent meeting in August, 2001.	
Roadblocks: No known major roadblocks exist at this time.	
Assistance Needed: ATSRAC guidance in defining “Wire System”. Does the Wire System includes such wiring as: <ul style="list-style-type: none">• Inside the galleys• Inside the lavatories• Inside the “black boxes”• Inside fuel tanks (Another team working?) Also: <ul style="list-style-type: none">• Coax cables• Ethernet (Data Bus)• Optical	

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Co-Chairs: Jean-Luc Ballenghien
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Date: July 25, 2001

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 Bhattacharia). 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). The work will be continued via e-mail and discussed during the WSHWG meeting in August, 2001.	
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: July 25, 2001

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 will be continued via e-mail and during the ESHWG/WSHWG concurrent meeting in August, 2001.	
Roadblocks: None known at this time, however, if the FAA version of the proposed AC 25.1309-1B is very different than the JAA version, then the harmonization process on the FAR/JAR will be affected.	
Assistance Needed: Status of the proposed AC/ACJ 25.1309-1B	

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

Working Group/Task: WSHWG #6

Co-Chairs: Jean-Luc Ballenghien
Vid Variakojis

Date: July 25, 2001

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 will be continued via e-mail and during the ESHWG/WSHWG concurrent meeting in August, 2001.	
Roadblocks: None known at present time.	
Assistance Needed: None at this time.	

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Working Group/Task: WSHWG #6

Co-Chairs: Jean-Luc Ballenghien

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Date: July 25, 2001

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 look at the FAR/JAR. The work will be continued via e-mail and discussed during the WSHWG meeting in August, 2001.	
Roadblocks: None known at this time.	
Assistance Needed: None required at this time.	

AGING TRANSPORT SYSTEMS RULEMAKING ADVISORY COMMITTEE (ATSRAC)

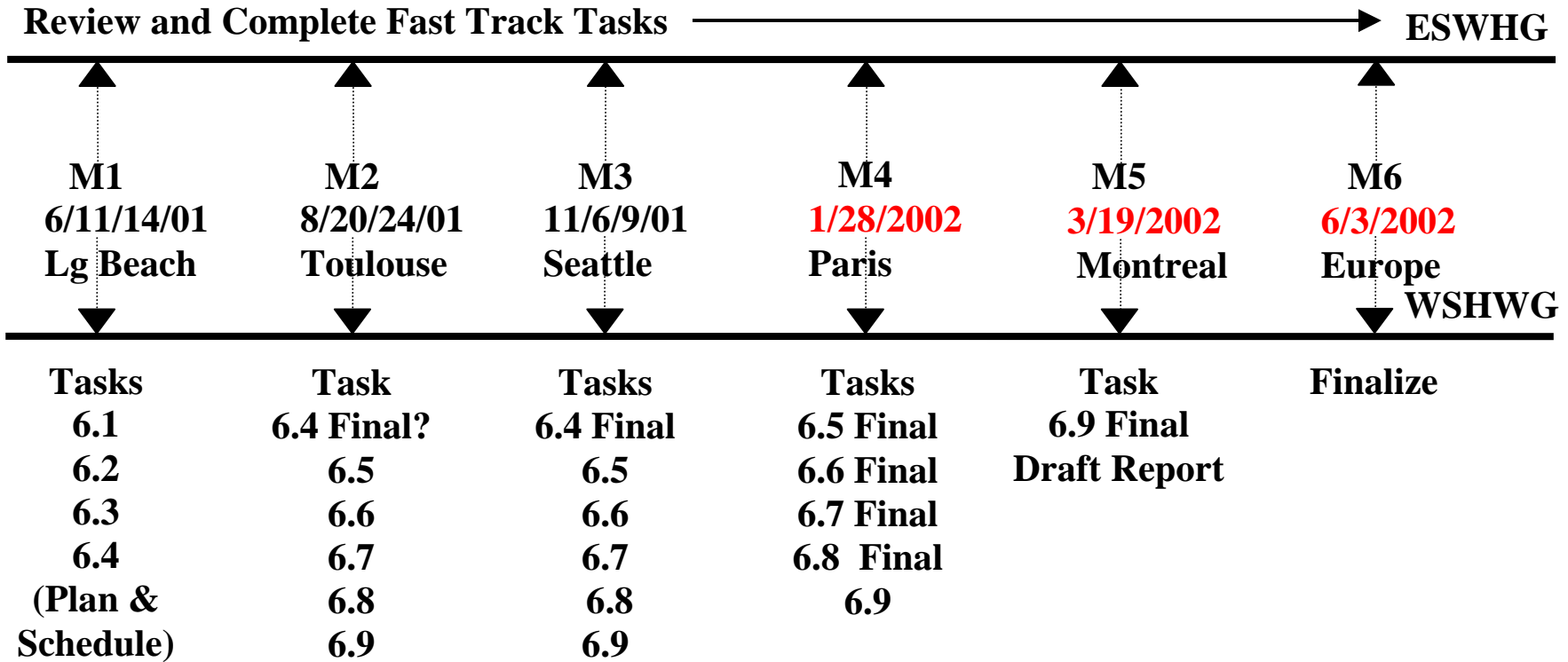
Working Group/Task WSHWG #6

Co-Chairs: Jean-Luc Ballenghien
Vid Variakojs

Date: July 25, 2001

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 will be continued via e-mail and during the ESHWG/WSHWG concurrent meeting in August, 2001. 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