

Cabin Systems Subcommittee

Meeting Agenda

October 23-25, 2018

Tempe, Arizona

Hosted by:

Amphenol

CSS Leadership

Dale Freeman (DAL)

Chairman

Jecelin Peterson

Boeing Co-Chairman

Fritz Urban

Airbus Co-Chairman

Cabin Systems Meeting Agenda

- ▶ Introductions
 - Special Notes
 - ▶ Intellectual Property (*Patent & Copyrights*)
 - ▶ APIM Guidelines
 - ▶ Members and Corporate Sponsors
 - Acceptance of Previous Meeting Report (*18-082/CSS-609*)
 - Drafts and Strawmen
 - ▶ Draft 1 of Supplement 2 to ARINC 800 Part 2 (New)
 - ▶ Draft 1 of Supplement 2 to ARINC 800 Part 3 (New)
 - ▶ Draft 1 of Supplement 1 to ARINC 800 Part 4 (New)
 - ▶ Draft 1 of Supplement 4 to ARINC 664 Part 2 (New)
 - ▶ Draft 1 of Supplement 8 to ARINC 628 Part 1
 - ▶ Draft 1 of Project Paper 820
 - ▶ ARINC Project Paper 854
 - Working Papers Identification
 - ▶ Requirements Matrices for 2-wire Ethernet cables
 - ▶ APIM 18-001 – 5th Generation Cabin Network (5GCN)
 - ▶ APIM 17-011 – Video Surveillance System
 - ▶ APIM 17-012 – Updated 3GCN
 - ▶ APIM 17-013 – Cell Modems
 - ▶ PP820 – Boeing/Thales response to action items
 - ▶ **Others to be added**

Objectives

- ▶ Review of Current CSS Program
- ▶ Consider New Supplement to ARINC 628 Part 0
- ▶ Connectors and Cables
 - Supplement 2 to A800 Part 2 (Specification of Connectors) – 854 LAN and 5GCN
 - Supplement 2 to A800 Part 3 (Specification of Cables) – determine 802.11 bw & bz action items
 - Supplement 1 to A800 Part 4 (Testing) – New material on testers (Fluke)
- ▶ PP648 -- Guidance for Seat Production Testing
- ▶ Discussion on DFS Monitoring (ZII)
- ▶ Supplement 8 to ARINC 628 Part 1
 - HD Landscape Camera and 4K Video
 - Video Surveillance
 - CWAP Automatic Region Code Adaptation
 - MultiGigabit CWAP
- ▶ Project Paper 820 (Wireless Networks)
- ▶ New Cabin LAN Definition
 - ARINC 664, Part 2
 - Seat and Lighting Interfaces – PP 854
- ▶ ARINC 664 Part 2 (10 Gb Ethernet)
- ▶ ARINC 800, Part 4 (Fluke illustrations)
- ▶ Strawman for 5GCN
- ▶ Agenda and Location for Next Meeting

- ▶ **Current CSS Program**
 - Review of current program
 - ▶ **Review ARINC 800, Part 2 (Specification of Connectors)**
 - Initiate work on Supplement 2
 - **Develop Appendix E for the ARINC 854 Connector (A800P2-127)**
 - ▶ **Review ARINC 800, Part 3 (Specification of Cables)**
 - Make editorial updates to A800 P3 to add cable referencing scheme for 8ax cable (A800P3-37)
 - Provide PPTs for proposed cable (A800P3-43)
 - Provide text intended for twisted pair 100BASE-T1 and 1000BASE-T1 (A800P3-44)
 - Provide Chapter 4 to W.L. Gore for proposed changes (A800P3-45)
 - **Requirements for 2-wire Ethernet Cable**
 - ▶ **ARINC 800, Part 4 (Test Methodology)**
 - Review the draft changes
 - Inquire about 100BASE-T1 and 1000BASE-T1 and 10GBASE (8-ax) (A800P4-9)
 - ▶ **Supplement 4 to ARINC 664, Part 2 (1000 BASE-T1)**
 - Ensure standard testing of 8ax termini as required by ARINC 800, Part 4
 - ARINC IA to send WORD files to Boeing (L.P.) (A664p2-5)
 - ▶ **Fiber Optic Subcommittee**
 - Brief ARINC 805, 806, 807
 - ▶ **Proposed Supplements to ARINC 808 and ARINC 809**
 - Document the redundancy capabilities of the backbone (A808/809-2)
 - Revise Section 8 for the fiber backbone (A808/809-3)
- Delta/IA**
CSS
CSS/CWG
- TEC**
CSS
IA
TEC/Carlisle/Gore
W.L. Gore
ARINC IA
CWG
CSS
CSS/Fluke
Boeing/Fluke
CSS
CSS
ARINC IA
CSS
IA
CSS
Boeing/Eagle Eng.
Boeing

▶ Tuesday (1400-adjourn)

▶ ARINC 628, Part 1 Cabin Surveillance

- Review connector req'ts for cargo areas (628P1-205)
- Review strawman for Section 18.0, Video Surveillance System (628P1-206)
- Discuss internally the surveillance strawman submitted by Lateocore (628P1-213)

CSS

Airbus/Boeing

Airbus

Airbus

- ▶ **ARINC 628, Part 5 – Cabin Electrical Equipment And Wiring Installation Guidelines CSS**
 - Generate an APIM to update A628 P5 for abrasion requirements (A628-P5-11) Delta
 - Investigate the benefit of eliminating "green sleeve" req's since cables are PTFE sleeved (-12) Airbus/Boeing
 - Develop examples of changes needed in the document in support of the APIM (A628-P5-13) Delta
 - Refine the definition of "splice" with regards to seat (internal and installed) (A628-P5-14) Airbus/Boeing
 - Clarify the correct regulatory notations (FAA/EASA 25.17xx(x) (A628-P5-15) Boeing
 - Deliver mature APIM to SAI for coordination (A628-P5-16) ARINC IA
- ▶ **ARINC PP 648 - Guidance for Seat Production Testing**
 - Prepare ATP template, remove supplier-specific references (648-15) CSS
 - Add a note to section 1.4.2 to handle the specific situation where the airframe manufacturer IA/Zodiac validates the ICD, that is, when direct signals are coming from the aircraft (e.g., emergency lights) ARINC IA
 - Rewrite section 3.2.2.3 for interface between the SAC/ECU and IFE Seat equip. (648-43) Thales
 - Continue development of the document RC/Pana
- ▶ **New Cabin Equipment Bus (ARINC 664 P2 and PP 854)**
 - **PP 854 New Cabin LAN (Seat and Lighting Interfaces)**
 - ▶ Report from Web Conference(s) CSS
 - ▶ Review draft spec from Thales and provide comments on the proposed architecture CSS
 - ▶ Develop a proposal specific to security (Section 6) (A854-019) All
 - ▶ Send materials to Zodiac, Crane, and Zodiac Seats (A854-20) All
 - ▶ Research regulatory impact of the ARINC 854 project (A854-021) Zodiac/Crane
- ▶ **APIM 18-001 for Cabin Network Expansion (5GCN)**
 - Develop written summary of the proposed 5GCN architecture (CSS-M-6) ARINC IA
 - Perform analysis of proposed 5GCN architecture and provide feedback to CSS (CSS-M-7) Airbus/Boeing
- ▶ **ARINC 628, Part 1 Cell Modem Standardization**
 - Develop an outline for the project paper CSS
 - Review design characteristics on cell modems CSS

Thursday, 0900 – 1700

- ▶ **Supplement 8 to ARINC 628 Part 1 – CWAP GCOM/HD Landscape Camera**
 - **GCOM Updates**
 - Provide feedback on Airbus proposals for 802.11ac CWAP configurations (628 P1-204)
 - What are the requirements for the connectors used on equipment in the Cargo areas. (205)
 - Provide design characteristics for inclusion in the new cell modem spec (208)
 - Review and provide comments on the Airbus strawman for Cell modems (209)
 - Prepare a proposal for connectorization (high speed data concerns) (212)
 - Research and determine the acceptable height of CWAP units (215)
- ▶ **Review Draft 1 of Project Paper 820 (Wireless Network)**
 - Develop Draft 2 of ARINC PP 820
- ▶ **Supplement 8 to ARINC 628 Part 1 – CWAP GCOM**
 - **DFS Monitoring Updates (as applicable)**
- ▶ **New Business**
 - Propose a behavior document for wireless systems (CSS-M-1)
- ▶ **Discuss agenda and locations for next meetings**
 - Q4 Tempe (October 23-25, 2018) Amphenol
 - Q1 Cocoa Beach (February 5-7, 2019) Carlisle
 - Q2 Fulda, Ger (May 22-24, 2019) CotsWorks/Molex
 - Q3 OPEN (USA) (August)
 - Q4 OPEN (Munich) (October) ZII
- ▶ **Adjourn CSS**

CSS
ZII
KID/Miltope/Pana
A/B/Latecoere
Miltope/Zii/Thales
Miltope/Zii/Thales/Pan
VT Miltope
Airbus
CSS
Boeing

Zii
CSS
RCI
All

2018-2019 CSS Meetings Planning (Tentative)

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct
CSS	Oct 23-25 Tempe			Feb 5-7 St. Aug			May 22-24 Fulda			TBD		TBD
CWG	Same as CSS			Same as CSS			Same as CSS			Same as CSS		Same as CSS
Ku/Ka SatCom												
GAIN			WebEx Meetings as needed									
NIS	16-18 Orlando		TBD				TBD		TBD			
FOS												
SAI	9-10 London			TBD								
APEX					5-7 Toulouse							
AEEC	10-12 London						April 29 May 2 Prague					