

# **Cabin Systems Subcommittee**

## **Meeting Agenda**

*October 31 – November 2, 2017  
Brea, California, USA*

**Hosted by:**

*Zodiac Inflight Innovations*

## **CSS Leadership**

<i>Dale Freeman</i>	<i>DAL</i>	<i>Chairman</i>
<i>Gerald Lui-Kwan</i>	<i>Boeing</i>	<i>Co-Chairman</i>
<i>Rolf Gödecke</i>	<i>Airbus</i>	<i>Co-Chairman</i>

# Cabin Systems Meeting Agenda

## ▶ Introductions

- Special Notes
  - ▶ Intellectual Property (*Patent & Copyrights*)
  - ▶ APIM Guidelines
  - ▶ Members and Corporate Sponsors
- Acceptance of Previous Meeting Report ( 17-127/CSS-600)
- Current Drafts
  - ▶ Draft 4 of Supplement 1 to ARINC 800 Part 2 (New)
  - ▶ Draft 4 of Supplement 3 to ARINC 664 Part 2
  - ▶ Draft 3 of ARINC Project Paper 836A (New)
  - ▶ Draft 1 of Supplement 8 to ARINC 628 Part 1
  - ▶ Draft 1 of Project Paper 820
- Working Papers Identification
  - ▶ Requirements Matrices for 2-wire Ethernet connector and cables
  - ▶ APIM 17-011 – Video Surveillance System
  - ▶ APIM 17-012 – Updated 3GCN
  - ▶ APIM 17-013 – Cell Modems
  - ▶ PP820 – Boeing/Thales response to action items
  - ▶ PP854 - Report from the cabin bus ad hoc working group –Thales
  - ▶ PP854 - Updated Strawman input from cabin bus ad hoc working group
  - ▶ **Others to be added**

# Objectives

- ▶ Review of Current CSS Program
- ▶ Consider New Supplement to ARINC 628 Part 0
- ▶ Connectors and Cables
  - Supplement 1 to A800 Part 2 (Specification of Connectors) - 10 Gbps Ethernet 8ax Contact
  - Supplement 1 to A800 Part 3 (Specification of Cables) – close action items
  - MT Fiber Optic Connectors
- ▶ ARINC 836A – mini-modules
- ▶ APIM for Cabin Surveillance
- ▶ PP648 -- Guidance for Seat Production Testing
- ▶ Discussion on DFS Monitoring (P3 and ZII)
- ▶ Supplement 8 to ARINC 628 Part 1
  - HD Landscape Camera and 4K Video
  - CWAP Automatic Region Code Adaptation
  - MultiGigabit CWAP
- ▶ APIM for Proposed Supplements to ARINC 808 and 809
- ▶ APIM for 5GCN
- ▶ APIM for Cell Modem Definition (APIM 17-013)
- ▶ Supplement 5 to ARINC 628 Part 9 (Adopted)
- ▶ 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)
- ▶ Agenda and Location for Next Meeting

# Tuesday, 9:00 AM – 5:00 PM

- ▶ **Current CSS Program**
    - Review of current program
  - ▶ **ARINC 628 Part 0**
    - Revise A628P1 APIM to update A628P0 (A628P0-7)
    - Create initial draft of A628P0 Supplement 4 (A620P0-8)
  - ▶ **Review ARINC 800, Part 2 (Specification of Connectors)**
    - Add US Customary units to drawings in appendix E (A800P2-113)
    - Incorporate inputs from Boeing into next draft of A800P2 Section 3.1.3.9.2, Section 2 App. E, 3.1.3.6.1/2, Section 1.2 etc. reference email dated 8/20/17 (A800P2-117)
    - Provide dimensions for PC board tail on 8ax contact (A800P2-118)
    - Incorporate inputs from Radiall on Table 3-7 requirement 508 "x" length (A800P2-119)
    - Rerun 8ax performance tests with parameters specified by Boeing (A800P2-120)
    - Provide PP854 connector performance data corresponding to the requirements matrix and also 100 mb ethernet performance to support comparison analysis (A800P2-121)
    - **Requirements for 2-wire Ethernet Connector**
  - ▶ **Review ARINC 800, Part 3 (Specification of Cables)**
    - Make editorial updates to A800 P3 to add cable referencing scheme for 8ax cable (A800P3-37)
    - Update cable requirements matrix with proposed changes to 802.3bw cabling (A800P3-38)
    - Update APIM 16-011 w/ updates to A800 P2/P3 for the new wire/connectors for the A854 LAN
    - **Requirements for 2-wire Ethernet Cable**
  - ▶ **Fiber Optic Connectors (PP846)**
    - Determine copper pin, high voltage and sealing requirements for hybrid MT insert (FOWG-27)
    - App. E, dB (Spelling) (FOWG-28)
  - ▶ **Review ARINC Project Paper 836A (Mini-MRP)**
    - Provide locking mechanism drawings and incorporate into document (836-61)
- Delta/IA**  
**CSS**  
**CSS**  
IA  
IA  
**CSS/CWG**  
IA  
  
IA  
Amp/Radiall  
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Amp/TEC  
**CWG**  
**CSS/CWG**  
IA  
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**CWG**  
**CSS**  
Boeing/Airbus  
IA  
**CSS**  
Molex

# Wednesday, 9:00 AM – 5:00 PM

- ▶ **APIM 17-011 for Cabin Surveillance**
  - Develop an outline for the camera surveillance system specification (CSS-M-4)
  - Develop a comprehensive workplan for APIM 17-011
- ▶ **APIM 17-013 for Cell Modem Standardization**
  - Develop an outline for the project paper
- ▶ **PP648 - Guidance for Seat Production Testing**
  - Prepare ATP template, remove supplier-specific references (648-15)
  - Revise Figure 1-1 (648-20)
  - Draft Section 2.3.1 – IFE (648-23)
  - Provide a draft of Section 3.2.1 – IFES (648-30)
  - Propose new wording for replacing troubleshooting and rework (648-38)
  - Add a note to LRU flow for direct signals from the aircraft (e.g., emergency lights) (648-39)
  - Provide a description of the scope of the testing of IFE equipment in the seat.(648-40)
  - Rewrite section 3.2.2.3 for interface between the SAC/ECU and IFE Seat equip. (648-43)
- ▶ **Supplement 8 to ARINC 628 Part 1 – CWAP GCOM**
  - **DFS Monitoring Discussion (Immediately after lunch)**
  - Continue work on ARINC 628 if time allows (see next page)

**CSS**

Airbus

CSS

**CSS**

CSS

**CSS**

IA/BE

IA

Thales/PAC/Zii

PAC/Thales/Zii

IA

IA

IFE suppliers

Thales

**P3/Zii**

# Wednesday, 9:00 AM – 5:00 PM (continued)

- ▶ **Supplement 8 to ARINC 628 Part 1 – CWAP GCOM/HD Landscape Camera**
    - **GCOM Updates**
    - Review and revise Att 17 video formats and integrate APEX EETWG requirements (628 P1-195)
    - Develop executive summary of the proposed path forward to monitoring app. (628 P1-202)
    - Develop proposals for CWAP network to support 802.11ac Wave 2 operation (628 P1-203)
    - Provide feedback on Airbus proposals for 802.11ac CWAP configurations (628 P1-204)
  - ▶ **APIM 17-012 for Proposed Supplements to ARINC 808 and ARINC 809**
    - Develop a workplan for updating A808 and A809 (809-393)
  - ▶ **APIM for Cabin Network Expansion (5GCN)**
    - Develop written summary of the proposed 5GCN architecture (CSS-M-6)
    - Perform analysis of proposed 5GCN architecture and provide feedback to CSS (CSS-M-7)
    - Submit APIM for 5GCN to SAI for review (CSS-M-8)
  - ▶ **Review Draft 1 of Supplement 5 to ARINC 628 Part 9**
    - Create review draft for next meeting (A628P9-13)
  - ▶ **Review Draft 1 of Project Paper 820 (Wireless Network)**
    - Review changes to aircraft interconnect tables and make appropriate changes
- CSS**  
**ZII**  
Thales  
ZII  
CSS  
KID/Miltope  
Panasonic  
**CSS**  
CSS  
**CSS**  
Airbus  
IFE Suppliers  
IA  
**CSS**  
IA  
**CSS**  
Boeing/Thales

# Thursday, 9:00 AM – 12:00 Noon

- ▶ **New Business**
    - Propose a behavior document for wireless systems (CSS-M-1)
    - **Discuss Airbus-proposed cell modem APIM 17-013**
  - ▶ **New Cabin Equipment Bus (ARINC 664 P2 and PP 854)**
    - **Supplement 4 to ARINC 664, Part 2 (New Cabin LAN)**
      - ▶ **Discuss Needs and Requirements for 100/1000 BASE T1 Definition**
    - **New Cabin LAN (Seat and Lighting Interfaces)**
      - ▶ **Report from Ad hoc working group**
      - ▶ Provide a test plan for the 802.3bw physical wiring (854-004)
      - ▶ Revise A664P2 APIM for incorporation of 802.3bz physical layer definitions A664P2
  - ▶ **Supplement 3 to ARINC 664, Part 2 (10 Gb Ethernet)**
    - Revise the applicable APIM to include 802.3bz into A664P2 (664P2-13)
    - Ensure standard testing of 8ax termini as required by ARINC 800, Part 4
  - ▶ **Discuss agenda and locations for next meetings**
    - Cocoa Beach is firm (February 20-22, 2018)
    - Versailles (May 15-17, 2018)
    - Q3 OPEN (August 14-16, 2018 – Tent.)
    - Q4 OPEN (October 23-25, 2018 – Tent.)
  - ▶ **Adjourn CSS**
- CSS**  
RCI  
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Thales  
Thales  
Boeing  
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**CSS**  
**All**  
IA

**2017-2018 CSS Meetings Planning (Tentative)**

	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
<b>CSS</b>	Oct 31- Nov 2 Brea, CA			20-22 Cocoa Beach, FL			15-17 Versailles			14-16 Loc TBD	
<b>Connector WG</b>	Same as CSS			Same as CSS			Same as CSS			Same as CSS	
<b>Ku/Ka SatCom</b>			10-12 Hawthorne CA		13-15 TBD						
<b>GAIN</b>	Same as CSS	Monthly WebEx Meetings									
<b>NIS</b>			16-18 TBD				TBD				
<b>FOS</b>			23-25 DFW					12-14 Samoens (Tent)			
<b>SAI</b>				TBD				TBD			
<b>APEX</b>			TECH 23-24 LAX								
<b>AEEC</b>						23-26 General Session Dallas					