

# **Cabin Systems Subcommittee**

*Meeting Agenda*

*February 21-23, 2017  
Tempe, Arizona*

*Dale Freeman, DAL, Chairman  
Gerald Lui-Kwan, Boeing, Co-Chairman  
Rolf Gödecke, 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 (17-011/CSS-589)
- Current Drafts
  - ▶ Draft 4 of Supplement 1 to ARINC 800 Part 2
  - ▶ Draft 4 of Supplement 1 to ARINC 800 Part 3
  - ▶ Draft 3 of Supplement 3 to ARINC 664 Part 2
  - ▶ Draft 3 of ARINC Project Paper 836A
  - ▶ Draft 1 of Supplement 8 to ARINC 628 Part 1
  - ▶ Draft 2 of Supplement 9 to ARINC 628 Part 2
  - ▶ Draft 1 of Supplement 5 to ARINC 628 Part 9
  - ▶ Draft 1 of Project Paper 820
- Working Papers Identification
  - ▶ Proposed APIM – 17-007 - MultiGigabit CWAP (802.11ac Wave 2)
  - ▶ Proposed APIM on LOS Connectivity
  - ▶ More To be Added

# Objectives

- ▶ Review of Current CSS Program
- ▶ 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)
  - Fiber Optic Connectors
- ▶ ARINC 836A – mini-modules
- ▶ PP648 -- Guidance for Seat Production Testing
- ▶ Supplement 8 to ARINC 628 Part 1
  - HD Landscape Camera and 4K Video
  - CWAP Automatic Region Code Adaptation
  - MultiGigabit CWAP
- ▶ Cabin Network Expansion
- ▶ Supplement 5 to ARINC 628 Part 9
- ▶ Project Paper 820 (Wireless Networks)
- ▶ New Business
- ▶ New Cabin LAN Definition
  - ARINC 664, Part 2
  - Seat Interfaces – PP 8XX, Part 1
  - Lighting Interfaces – PP 8XX, Part 2
- ▶ ARINC 664 Part 2 (10 Gb Ethernet)
- ▶ Agenda and Location for Next Meeting

- ▶ **Current CSS Program**
    - Review of current program
  - ▶ **Discussion of Proposed Standardization Project**
    - Cabin & cargo video surveillance system
  - ▶ **Review ARINC 800, Part 2 (Specification of Connectors)**
    - Develop a proposal for color band marking on the 8ax contact (A800P2-102)
    - Incorporate strawman input from Radiall/Amphenol into the next draft of A800P2 (A800P2-103)
    - Revise pictures of contacts to denote type 1 and 2 and change nomenclature (A800P2-104)
    - Revise contact drawings (A800P2-105)
    - Update table 3-4 and propose qualification requirements for the 8ax contact (A800P2-106)
  - ▶ **Review ARINC 800, Part 3 (Specification of Cables)**
    - Review Section 4.1.1.3 data cable temperature - 200 degrees C vs 135 degrees C (A800P3-34)
    - Revise tables in section 2.2 to include US customary units (A800P3-35)
  - ▶ **Fiber Optic Connectors (PP846)**
    - **Update status of PP846 development**
    - Verify the 125C temp requirement is adequate for MT termini (FOWG-20)
    - Provide response to FOS on input for the 4165 MT fiber insert (FOWG-23)
  - ▶ **Review ARINC Project Paper 836A (Mini-MRP)**
    - Include frame drawing view for the bonding spring clip height above the enclosure. (836-57)
    - Provide connector centerline dimensions (836-58)
    - Complete envelope drawings for the frame and enclosure for the Mini-Mor (836-59)
    - Define frame and box reference planes (836-60)
- Delta/IA**  
**CSS**  
**CSS**  
Latecoere  
**CSS/CWG**  
Amp/Radiall  
IA  
Amp/Radiall  
Amp/Radiall  
Amp/Radiall  
**CWG**  
Airbus/Boeing  
IA  
**CSS**  
**IA**  
Boeing  
IA  
**CSS**  
IA  
Suppliers  
IA  
Molex

# Wednesday, 9:00 AM – 5:00 PM

## ▶ **PP648 - Guidance for Seat Production Testing**

- Develop input for sections 1.1 and 1.2. Include Airbus seat testing strawman material (648-1)
- Provide a block diagram of testing that can be performed at the Seat Supplier. (648-7)
- Review Thales document on a data driven seat process for seat acceptance (648-11)
- Clarify/revise page 5 subparagraphs 2 & 3 and integrate with Zodiac diagrams (648-14)
- Prepare ATP template, remove supplier-specific references (648-15)
- Revise Figure 1-1 (648-20)
- Propose a draft of Section 2.0 Introduction (648-22)
- Draft Section 2.3.1 – IFE (648-23)
- Provide a draft of Section 3.2.1 – IFES (648-30)
- Contact Amsafe to address Sections 2.3.5 and 3.2.5 (Airbags) (648-32)
- Section 1.5 - specify what each review contributes to seat testing. (648-35)
- Section 2.1 Develop initial prose for this section (648-36)
- 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)
- Update section 2.1 on Grounding and Bonding (648-41)
- Setup webex and teleconference for December (648-42)

## **CSS**

Panasonic  
IFE Suppliers  
IFE suppliers  
Thales  
IA/BE  
IA  
IA  
Thales/PAC/Zii  
PAC/Thales/Zii  
IA  
IA  
IA/ZSF/BEA  
IA  
IA  
IFE suppliers  
BEA/ZSF  
IA

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

- ▶ **Supplement 8 to ARINC 628 Part 1 – CWAP GCOM/HD Landscape Camera**
    - **GCOM Updates**
    - **Use of frequencies in the 5 GHz band**
    - Review and revise Att 17 video formats and integrate APEX EETWG requirements (628 P1-195)
    - Provide substantiation for the 5 mbps stream rate for h.265 4K format - 17.2.6.1.1 (628P1-199)
    - Review draft of HD Video Camera video formats/support of H.265 Profile 5 (628P1-200)
    - Develop APIM for next generation CWAP (628P1-201)
    - **Review Draft APIM on MultiGigabit CWAP (802.11ac Wave 2)**
  - ▶ **Consider Cabin Network Expansion (5GCN?) APIM**
    - **Boeing proposal for A808/A809 updates**
  - ▶ **Supplement 9 to A628P2 (USB 3.1) – close action items**
    - Create Review draft and circulate for adoption action (628-P2-28)
  - ▶ **Review Draft 1 of Supplement 5 to ARINC 628 Part 9**
    - Review IP address allocations for new 100baseT1 seat devices (A628P9-12)
  - ▶ **Review Draft 1 of Project Paper 820 (Wireless Network)**
    - Propose power consumption value for section 2.2.1 assuming POE for CWAPs (820-11)
    - Arrange meeting with BCA Renton to discuss standard disconnect strategy (820-15)
    - **Detail review of Thales/Boeing Draft**
- CSS**  
**ZII**  
**Airbus**  
Thales  
Latecoere  
IFE suppliers  
VT Miltope  
**CSS**  
**CSS**  
**Boeing**  
**CSS**  
IA  
**CSS**  
Thales  
**CSS**  
RCI  
Boeing  
**CSS**

# Thursday, 9:00 AM – 12:00 Noon

- ▶ **New Business**
    - Propose a behavior document for wireless systems (CSS-M-1)
    - Airbus-proposed APIM on A2G Communications
  - ▶ **Supplement 4 to ARINC 664, Part 2 (New Cabin LAN)**
    - **Discuss Needs and Requirements for 100/1000 BASE T1 Definition**
  - ▶ **New Cabin LAN (Seat Interfaces) – Project Paper 8XX Part 1**
    - Create ad-hoc WG to develop a proposal for the seat bus protocol/addressing (8XX-001)
    - **Review Strawman proposal for seat bus protocol**
  - ▶ **New Cabin LAN (Lighting Interfaces) – Project Paper 8XX Part 2**
    - **Initiate project for definition of Lighting Interfaces for new cabin LAN standard**
  - ▶ **Supplement 3 to ARINC 664, Part 2 (10 Gb Ethernet)**
    - Add voltage ranges to Table 3-1 (664P2-10)
    - Review new 802.3bz specification and applicability and impact to your systems (664P2-11)
    - Develop next draft of A664P2 (664P2-12)
  - ▶ **Discuss agenda and locations for next meetings**
  - ▶ **Adjourn CSS**
- CSS**  
RCI  
Airbus  
**CSS**  
**CSS**  
**CSS**  
Thales  
Thales  
**CSS**  
**CSS**  
**CSS**  
IA  
CSS  
IA  
**All**

## 2016-2017 CSS Meetings Planning (Tentative)

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
CSS S/C	1 – 3 Newark			21-23 Tempe, Arizona			16-18 Sedan, FR (tentative)			22-24 Riga, Latvia (tentative)	
Connector WG	Same as CSS			Same as CSS			Same as CSS			Same as CSS	
Ku/Ka SatCom SC			10-12 Melbourne, FL					6-8 Annapolis (Tentative)			
GAIN S/C	No Meetings Planned										
NIS	15-17 Portland, OR										
FOS			24-26 St. Augustine					13-15 Avon. CT			
SAI				14-16 Coral Gables							
APEX								TECH 13-15 Los Angeles			EXPO 25-28 Long Beach
AEEC							1-4 General Session Milwaukee				