ARINC IA Project Initiation/Modification (APIM)

1.0 Name of Proposed Project  APIM 15-001A


2.0 Subcommittee Assignment and Project Support

2.1 Identify AEEC Group
Cabin Systems Subcommittee (CSS)

2.2 Support for the activity
Airlines: Delta Air Lines
Airframe Manufacturers: Airbus, Boeing
Suppliers: Panasonic Avionics, Thales, Lumexis, KID, Zodiac, BE Aerospace, Astronics, BAE Systems

2.3 Commitment for resources
Airlines: Delta
Airframe Manufacturers: Airbus, Boeing
Suppliers: Panasonic Avionics, Thales, Lumexis, KID, Zodiac, BE Aerospace, Astronics, BAE Systems

2.4 Chairmen:
Chairman: Dale Freeman, Delta
Co-Chairmen: Gerald Lui-Kwan, Boeing and Fritz Urban, Airbus

2.5 Recommended Coordination with other groups
None

3.0 Project Scope
This project will define requirements and recommended practices for seat testing to be performed at the seat manufacturers facilities prior to the shipment of the seats to the airframe manufacturers, MRO, or operators for installation in the aircraft.

ARINC Project Paper 8xx will define guidance for production testing of seats and seat groups at the seat suppliers’ facilities so that fully tested seats and seat groups will be received at the airframe manufacturer assembly lines, MRO, or at the operator facility for modifications.

3.1 Description
Development of guidelines to test seats and seat groups to ensure that installed equipment has been interconnected and integrated correctly and is operational when shipped for installation in the aircraft.

3.2 Planned usage of the envisioned specification
New aircraft developments planned to use this specification  yes  no
Airbus: A320NEO, A330NEO
Boeing: 777X, 737MAX

Modification/retrofit: yes ☒ no ☐
  Boeing: 737NG, 747-400, 747-8, 757, 767, 777, 787

Needed for airframe manufacturer or airline project: yes ☒ no ☐
  The timetable for this project is mainly driven by the development time
  needed to provide a mature definition. Introduction is not linked to a specific
  aircraft project. Introduction can be done as soon as possible to get the
  advantages of this report.

Mandate/regulatory requirement: yes ☒ no ☐

Program and date:
  Is the activity defining/Changing an infrastructure standard? yes ☒ no ☐

When is the ARINC standard required? October 2016

What is driving this date? __ Aircraft development schedules.

Are 18 months (min) available for standardization work? Yes ☒ no ☐
  If NO please specify solution: ____________________________

Are Patent(s) involved? yes ☒ no ☐
  If YES please describe, identify patent holder: ____________________________

3.3 Issues to be worked

- Develop testing that assures interconnected LRUs in the seat operate
  in an integrated fashion
- Develop proposed test concepts and plans to assure that the seats
  are operational as described above
- Delineate roles and responsibilities of the parties involved in seat
  integration

4.0 Benefits
The benefit is the reduction in the cost of seat installation and rework in the aircraft.

4.1 Basic benefits
Operational enhancements: yes ☒ no ☐

For equipment standards:
  a. Is this a hardware characteristic? yes ☒ no ☐
  b. Is this a software characteristic? yes ☒ no ☐
  c. Interchangeable interface definition? yes ☒ no ☐
  d. Interchangeable function definition? yes ☒ no ☐

  If not fully interchangeable, please explain: ____________________________

  Is this a software interface and protocol standard? yes ☒ no ☐

  Specify:
  Product offered by more than one supplier: yes ☒ no ☐
Identify: Recaro, B/E Aerospace, Sogerna, Jamco, Zodiac

4.2 **Specific project benefits**
The new document will provide requirements and recommended practice for production testing of seats and seat groups after completion to ensure operational seats and seat groups when delivered for installation in an aircraft.

4.3 **Benefits for Airlines**
The delivery of aircraft to the airlines is not delayed due to troubleshooting and rework of passenger seats. Also benefits the airlines during modification efforts in eliminating rework of new passenger seats during installation.

4.4 **Benefits for Airframe Manufacturers**
Airframe manufacturers minimize the impact of seat related issues during cabin furnishing phase and ensure in-time delivery.

4.5 **Benefits for Seat and Seat Equipment Suppliers**
Seat and system suppliers minimize troubleshooting and rework when seats are delivered tested and functional to the airframe manufacturers. Harmonized and generally accepted basic test requirements reduce the time and cost for the seat equipment suppliers and seat manufacturers.

5.0 **Documents to be Produced and Date of Expected Result**

New ARINC Project Paper 648

6.0 **Meetings and Expected Document Completion**
The following table identifies the number of meetings and proposed meeting days needed to produce the documents described above.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mtgs</th>
<th>Mtg-Days (Total)</th>
<th>Expected Start Date</th>
<th>Expected Completion Date</th>
</tr>
</thead>
</table>

*NOTE: This effort will take place as partial-day sessions within the regularly scheduled CSS meetings. In addition, web conferences will be arranged between CSS meetings to review action items and the draft material.

6.1 **Expiration Date for this APIM**

[October 2016] October 2019

7.0 **Comments**
None

*Completed forms should be submitted to the AEEC Executive Secretary.*