

ARINC IA Project Initiation/Modification (APIM)

- 1.0 Name of Proposed Project** **APIM 15-001A**
- ARINC Project Paper 648:** *Cabin Seat Production Testing Requirements and Recommended Practices for Cabin Seat Production Testing*
- 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

Airbus: A320, A330, A340, A350, A380

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.

Activity	Mtgs	Mtg-Days (Total)	Expected Start Date	Expected Completion Date
New ARINC Project Paper 648	5*	*	May 2015	Oct-2016 Oct 2019

***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.