

ARINC Project Initiation/Modification (APIM)

1.0 Name of Proposed Project **APIM 19-007**
ARINC Project Paper 768A: Second Generation Integrated Surveillance System (ISS)

1.1 Name of Originator and/or Organization
Boeing / Jessie Turner

2.0 Subcommittee Assignment and Project Support

2.1 Suggested AEEC Group and Chairman
Systems Architecture and Interfaces (SAI) Subcommittee
SAI Chairmen: Reinhard Andrae and Rich Stillwell
Surveillance Working Group Chairman: Jessie Turner

2.2 Support for the activity
Airlines: American, Delta, FedEx, TAP Portugal, UPS
Airframe Manufacturers: Airbus, Boeing
Suppliers: ACSS, Collins Aerospace (TBC), Gables, Garmin, Honeywell
Others:

2.3 Commitment for Drafting and Meeting Participation
Airlines:
Airframe Manufacturers: Airbus, Boeing
Suppliers: ACSS, Garmin, Honeywell
Others:

2.4 Recommended Coordination with other groups
None

3.0 Project Scope

3.1 Description
This project proposes to create a generational [2nd Generation (2G)] update (ARINC 768A) to the existing ARINC 768 "Integrated Surveillance System (ISS)" characteristic which would support new aircraft designs. It is expected that the ARINC 768A – 2G ISS would result in a >50% reduction in size and weight as compared to currently fielded ARINC 768 ISS Processor Units and a >60% savings in volume and weight (at the aircraft-level). Overall equipment acquisition costs are expected to be reduced and overall reliability is expected to increase.

Identify: ACSS, Collins Aerospace, Honeywell

4.2 Specific project benefits (Describe overall project benefits.)

4.2.1 Benefits for Airlines

- Expected reduced equipment and operating cost (< weight and volume)
- Equipment supplier choices
- Higher reliability (no separate hardware for dual DME installation, and more reliable omni antennas)

4.2.2 Benefits for Airframe Manufacturers

- Common installation(s)/solution(s), less variability
- Equipment volume reduction (reduction in equipment racks, or allows other avionics equipment to be installed without additional equipment racks)

4.2.3 Benefits for Avionics Equipment Suppliers

- Provide equipment that can be installed on multiple aircraft platforms, across multiple aircraft OEMs.

5.0 Documents to be Produced and Date of Expected Result

ARINC Characteristic 768A, "Second Generation Integrated Surveillance System (2G ISS)", May 2021.

5.1 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
ARINC 768A – 2G ISS	4 (plus teleconferences)	12	October 2019	March 2021

6.0 Comments

6.1 Expiration Date for the APIM

October 2021