



Traffic, Terrain, and Weather Surveillance Kickoff Meeting

**ARINC Standards
718A, 735B, 768, 768A, 7xx**

**Chairman - Mohammed Ahmed, Boeing
AEEC Representative - Larry Hesterberg, ARINC**

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Paul J. Prisaznuk
AEEC Executive Secretary
and Program Director
pjp@sae-itc.org

Topics for Today

1. Introductions, Announcements, and Objectives
2. Statements of Work - Overview
 - ▶ APIM 19-007 - Second Generation Integrated Surveillance System (2G ISS)
 - ▶ APIM 19-008 - New Airborne Weather Radar with Remote RF
 - ▶ APIM 19-009 - Update of Existing TCAS, XPDR, and ISS Standards (via Supplement)
3. Deliverables and Schedule (May 2021)
 - ▶ **Supplement 5 to ARINC Specification 718A:** *Mark 4 ATC Transponder (ATCRBS/MODE S)*
 - ▶ **Supplement 3 to ARINC Specification 735B:** *Traffic Computer TCAS and ADS-B Functionality*
 - ▶ **Supplement 3 to ARINC Specification 768:** *Integrated Surveillance System (ISS)*
 - ▶ **ARINC Project Paper 768A:** *Second Generation Integrated Surveillance System (2G ISS)*
 - ▶ **ARINC Project Paper 7xx:** *Airborne Weather Radar System and Aircraft Installation Standards*
4. Web conferences - *monthly meetings suggested*
5. In-Person Meetings - *proposed*
 - ▶ March 17-20, 2020 - L3Harris - PHX
 - ▶ July 14-17, 2020 - [Tentative SEA]
 - ▶ November 17-20, 2020 - [Tentative]

APIM 19-007

New ARINC Project Paper 768A

Scope – Prepare **ARINC Project Paper 768A: *Second Generation Integrated Surveillance System (2G ISS)***

- Start from ARINC 768 ISS

- Add Distance Measuring Equipment (DME) function

- Remove Weather Radar

- Include latest RTCA MOPS requirements (per Supp 3 to ARINC 768)

Objectives

- Support new aircraft designs

- 50% reduction in size and weight as compared to currently fielded ARINC 768 ISS Processor Units

Timeline – Mature document expected May 2021

APIM 19-008

New ARINC Project Paper 7xx

Scope – Prepare **ARINC Project Paper 7xx: Airborne Weather Radar System and Aircraft Installation Standards**

- Define Weather Processor Unit (WPU)

- Define Weather Radar Antenna Unit (WRAU) - All RF located near antenna

- Define single and dual antenna drive configurations

- Use ARINC 708A WXR and ARINC 768 ISS definitions

Objectives

- Support new aircraft designs

- Supplier system interchangeability

- Common installation solutions, limited variability

Timeline – Mature document expected May 2021

APIM 19-009

Updates to ARINC 718A, 735B, and 768

Scope – Prepare three Supplements as follows:

- **Supplement 5 to ARINC Characteristic 718A:** *Mark 4 ATC Transponder (ATCRBS/MODE S)*
- **Supplement 3 to ARINC Characteristic 735B:** *Traffic Computer TCAS and ADS-B Functionality*
- **Supplement 3 to ARINC Characteristic 768:** *Integrated Surveillance System (ISS)*

Update ARINC 718A & ARINC 768 for ATC Transponder/ADS-B Out functions based on RTCA DO-181F - ATCRBS/Mode S MOPS and DO-260C - 1090 MHz ADS-B Out MOPS.

Update ARINC 735B & ARINC 768 for TCAS/ACAS-X/ADS-B In Functions based on RTCA DO-385 - Airborne Collision Avoidance System – X MOPS and RTCA DO-361A - Advanced Flight deck based Interval Management (FIM) MOPS and RTCA DO-260C - 1090 MHz ADS-B Out MOPS.

Timeline - Mature documents expected May 2021

AEEC Subcommittees, Industry Editors and Consensus Process

- ▶ AEEC Subcommittees and Working Groups develop ARINC Standards in an open setting.
- ▶ **Industry Editors** are an important extension of the ARINC Industry Activities staff. Drafts are prepared using established guidelines that ensure due process.
- ▶ You are encouraged to support your **Industry Editors** by providing timely inputs, participating in web conferences, etc.
- ▶ In return the **Industry Editors** provide material for review that reflects the consensus of industry.
- ▶ All drafts are subject to review by the Subcommittee and/or Working Group.

AEEC Meeting Hosts

- ▶ ARINC organizes 50 technical exchange meetings a year, partnering with organizations that host meetings at their offices or at a nearby location.
- ▶ Hosting an ARINC meeting does not need to be extravagant. All that is needed is a suitable conference room, projection equipment, and Wi-Fi.
- ▶ Hosts may choose to use local hotel and catering within their budget, etc.
- ▶ Many thanks to our many hosts
- ▶ Inquire with AEEC staff representative



Thank You