

ARINC Project Initiation/Modification (APIM)

1.0 Name of Proposed Project **APIM 19-013**
Development of **Supplement 6 to ARINC Specification 810: Definition of Standard Interfaces for Galley Insert (GAIN) Equipment Physical Interfaces**

1.1 Name of Originator and/or Organization
Christian Auris, Airbus, Co-Chairman, Galley Inserts (GAIN) Subcommittee

2.0 Subcommittee Assignment and Project Support

2.1 Suggested AEEC Group and Chairman

Galley Inserts (GAIN) Subcommittee
Co-Chairman: Christian Auris, Airbus
Co-Chairman: Jon Dhondt, Boeing

2.2 Support for the activity (as verified)

Airframe Manufacturers: Airbus, Boeing

2.3 Commitment for Drafting and Meeting Participation (as verified)

Airframe Manufacturers: Airbus, Boeing
Airlines: Lufthansa, Virgin Atlantic, Air Canada

2.4 Recommended Coordination with other groups

The following AEEC Subcommittee activities are relevant to this topic:

- SAI Subcommittee

3.0 Project Scope (why and when standard is needed)

3.1 Description

The current published version of **ARINC Specification 810-5: Definition of Standard Interfaces for Galley Insert (GAIN) Equipment Physical Interfaces** defines the physical dimensions for electrical and non-electrical galley inserts.

The standard defines the dimensional requirements for galley compartments and inserts. To enable future applications related to catering processes (e.g. inventory management), sensors will be required to identify the content of the galley compartment.

To enable cross fleet operations, it will be required to standardize positions and technology to be used to provide good service to the operators.

The definition of an Extended Size 2 will be added, which will fill the need for extended ovens following the ARINC 810/812A Specification. Newer aft galleys can support these deeper ovens, thus creating savings in weight, space, and cost.

3.2 Planned usage of the envisioned specification

New aircraft developments planned to use this specification yes no

Modification/retrofit requirement yes no

Needed for airframe manufacturer or airline project yes no

Specify: Driven by the need to provide common definitions for the airplane programs and retrofit programs

Mandate/regulatory requirement yes no

Is the activity defining/changing an infrastructure standard? yes no

Specify: ARINC 810

When is the ARINC standard required?

- Supplement 6 to ARINC 810 is expected by July 2021.

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**

Identify the types of sensors required for galley inventory tracking.

Define positions for sensors in the compartments for non-electrical inserts.

Define positions for identifiers on the non-electrical inserts (e.g. Trolley/Standard container).

Add definitions for Extended Size 2 GAINs (improvement proposal).

4.0 **Benefits**

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: Safran, Diethelm Keller, Korita, Collins Aerospace, AIM, Bucher

4.2 **Specific project benefits (Describe overall project benefits.)**

GAIN standards provide a common distribution system for Airbus and Boeing multi- and single-aisle aircraft. These standards focus on standardized interfaces that are beneficial to the airlines, airframe manufacturers, and suppliers.

4.2.1 **Benefits for Airlines**

This standard will provide several benefits to Airlines:

- Equipment interoperability between suppliers.
- Reduction in development cost, improved reliability, and therefore reduced cost for the airlines.

4.2.2 **Benefits for Airframe Manufacturers**

This standard will provide several benefits to Airframe manufacturers:

- Equipment interoperable between suppliers.
- Flexibility and reduced costs by working from the same set of guidelines.

- Reduction of time and cost for new developments due to reuse of proven solutions.

4.2.3 Benefits for Equipment Suppliers

This standard will provide several benefits to Equipment Suppliers:

- Eliminates the need to design custom provisions for each installation.
- Reduction of time and cost for new developments due to reuse of proven solutions.

5.0 Documents to be Produced and Date of Expected Result

Supplement 6 to ARINC Specification 810: *Definition of Standard Interfaces for Galley Insert (GAIN) Equipment Physical Interfaces.* A mature document is expected by 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
Supplement 6 to ARINC 810	1*	3	October 2019	May 2021

* In addition to the in-person meetings identified above, monthly web conferences will be used to prepare material for review.

6.0 Comments

N/A

6.1 Expiration Date for the APIM

May 2021

Completed forms should be submitted to Paul Prisaznuk, AEEC Executive Secretary and Program Director (pjp@sae-itc.org).