

## ARINC IA Project Initiation/Modification (APIM)

**1.0 Name of Proposed Project** **APIM #: 10-014**

Galley Insert (GAIN) Equipment Interfaces

**1.1 Name of Originator and/or Organization**

Galley Insert (GAIN) Subcommittee. List of participants identified below.

**2.0 Subcommittee Assignment and Project Support**

**2.1 Suggested AEEC Group and Chairman**

GAIN Subcommittee

**2.2 Support for the activity (as verified)**

Airlines: Continental Airlines, Lufthansa Airlines, Delta Air Lines

Airframe Manufacturers: Airbus; Boeing

Suppliers:

Aerotec Engineering Gmbh	Monogram Systems
Amphenol Aerospace	Radiall
B/E Aerospace	Rockwell Collins
Driessen Zodiac Aerospace	Sell Gmbh
MGS Modular Galley Systems	Tyco Electronics

Others:

**2.3 Commitment for Drafting and Meeting Participation (as verified)**

Airlines:

Airframe Manufacturers: Airbus; Boeing

Suppliers: B/E Aerospace; Monogram Systems; Radiall; Tyco Electronics

Others:

**2.4 Recommended Coordination with other groups**

(List other AEEC subcommittees or other groups.)

**3.0 Project Scope**

**3.1 Description**

The goal of the GAIN Subcommittee is to standardize (1) the physical dimensions, (2) electrical interfaces, (3) qualification testing, (4) maintenance procedures, (5) installation requirements, and (6) communication protocols for Galley Inserts.

The GAIN Subcommittee has completed Phase I of the Galley Insert standardization effort with the release of ARINC Specification 810, *Definition of*



If YES please describe, identify patent holder: \_\_\_\_\_

**3.3 Issues to be worked**

There are no significant issues.

**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: See suppliers above

**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 the features that are beneficial to the airlines, air framers and suppliers such as interfaces, communications protocols, design and installation, and maintenance.

**4.2.1 Benefits for Airlines**

- Gives the airlines greater flexibility when choosing the electrical galley insert they wish to install because the standards support multiple GAIN systems with a common base.
- Lowers GAIN system and installation costs by encouraging competition among suppliers and integrators.
- Lowers GAIN system integration and installation costs by providing common interface standards
- Lowers retrofit and upgrade costs because, with standard interfaces, different GAIN Systems can be fitted when needed.

**4.2.2 Benefits for Airframe Manufacturers**

- Reduces production cycle time by having fewer differences between the galley inserts.

- Reduces integration costs by standardizing dimensions and interfaces.

#### 4.2.3 Benefits for Avionics Equipment Suppliers

- Provides more opportunities to compete in both the new airplane and retrofit markets.
- Facilitates qualification of systems and installations.

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

This project will result in a supplement and three project papers. Documents are expected to be completed per the table below.

#### 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.

<b>Activity</b>	<b>Mtgs</b>	<b>Mtg-Days (Total)</b>	<b>Expected Start Date</b>	<b>Expected Completion Date</b>
<i>GAIN Design and Integration Guidance</i>	4	4	10/2010	4/2012
<i>GAIN Maintenance Guidance</i>	4	4	10/2011	04/2013
<i>Supplement 2 to ARINC 812</i>	1	0.5	10/2010	04/2011
<i>Project Paper 813</i>	2	1	10/2010	10/2011

\* Indicate unsupported meetings and meeting days, i.e., technical working group or other ad hoc meetings that do not requiring IA staff support.

#### 6.0 Comments

(Insert any other information deemed useful to the committee for managing this work.)

#### 6.1 Expiration Date for the APIM

April 2013

For IA staff use only

Date Received: Jan 15, 2010

IA staff : TEM

Potential impact: \_\_\_\_\_

*(A. Safety*

*B. Regulatory*

*C. New aircraft/system D. Other)*

Resolution: Authorized Oct 7, 2010

Assigned to SC/WG: GAIN