

## ARINC Project Initiation/Modification (APIM)

### 1. Name of Proposed Project

APIM #: 09-009A

Aircraft EFB Users Forum (EFB UF)

**Note: This APIM is an update to APIM 09-009 which initiated the EFB Users Forum.**

### 2. Suggested Subcommittee Assignment (who acts)

#### 2.1 Identify AEEC group

**This APIM proposes the continuation of the EFB Users Forum activity for three years, i.e., through December 2014. The activity is a joint activity with IATA EFB Task Force.**

#### 2.2. Support for the activity (all to be confirmed)

- Airlines: Lufthansa, FedEx, Air France, United, KLM, American, Swiss, Austrian, BA, TAP, Southwest, Delta, Continental, UPS and others.
- Airframers: Airbus, Boeing, Bombardier, Embraer and others.
- Suppliers: Astronautics, CMC Electronics, Gables Engineering, Goodrich, ECS, Jeppesen, Lufthansa Systems, NavAero, Teledyne, Thales, Rockwell Collins, L2, Ultramain and others.

#### 2.3. Commitment for resources (directly from participant) (all to be confirmed)

- Chairman: **Andreas Ritter (Lufthansa) and Alan Kasher (Southwest)**
- Airlines: Lufthansa, FedEx, Air France, United, KLM, American, Swiss, Austrian, **BA, Southwest, Delta, Continental, UPS and others.**
- Airframers: Airbus, Boeing, Bombardier, Embraer and others.
- Suppliers: Astronautics, CMC Electronics, Gables Engineering, Goodrich, ECS, Jeppesen, Lufthansa Systems, NavAero, Teledyne, **Thales, Rockwell Collins, L2, Ultramain** and others.

#### 2.4. Recommended Coordination with other groups

The following activities are relevant to this topic:

- AOC (633)
- ANFS (763, 821, 822)
- EFB (828, 834, 840)
- NIS (ADN + SEC)
- SAI

### 3. Project Scope

#### 3.1 Description

This activity provides a unified forum for airlines, EFB system integrators, EFB hardware providers, EFB application providers, **regulatory authorities**, and other interested parties to present, discuss and find solutions for topics of interest to the EFB user community. This includes but is not limited to EFB topics as follows:

- regulatory issues
- installation issues
- operational issues
- communication interfaces (incl. media, provider, connectivity)
- data input devices, terminals, displays, interactive devices
- application software
- electrical interfaces, including power

It should be noted that the EFB User Forum activity is not intended to create any new standard. Should such a desire arise during an EFB Users Forum meeting it would be directed to the appropriate AEEC body.

**The joint IATA/EFB Users Forum involves regulatory authorities both in the Americas and in Europe, as well as ICAO. These regulators have attended past EFB Users Forums and are seeking feedback and input from the EFB UF regarding proposed changes and future regulation.**

#### 3.2. Planned usage of the envisioned specification

- Not applicable

#### 3.3. Issues to be worked

The main issues are:

- Provide a forum where EFB system integrators and EFB hardware/software providers can present their product development plans with airline users
- **Provide a venue for regulators to present and discuss pending regulatory changes and their impact on airline operators.**
- Provide a forum for airlines to share current EFB experiences along with future expectations
- Enable the industry to identify common EFB services that need to be supported over the aircraft interfaces

- Identify any new avionics parameters which are useful for EFBs and the need for data structures to support the avionics interfaces
- Provide a forum for IT services providers to describe their efforts in this area. Ensure one or more methods are available to enable the EFBs to access wired and/or wireless air-/ground links, onboard servers and to internet services in general.
- Others (TBI)

## 4. Benefits envisioned

### 4.1. Basic benefits

Modeled after the Data Link Users Forum, the EFB Users Forum attracts users, **regulators** and suppliers in a neutral industry setting.

The activity identifies industry trends both operationally and technically. The overall goal is to exchange information and experience and to find standardized methods to resolve issues early and improve EFB services - for the benefit of all.

The rapidly evolving EFB market benefits from this platform and helps deal with key issues:

- Support Operational enhancements (reduction in DOC)
- Clarify in-service issues
- Support Interchangeability of EFB applications
- **Identify potential improvements to existing** interface and protocol standards **as well as opportunities for new standards development**
- Inform and discuss products offered from suppliers (competitive environment)
- Support hardware and software **development** as open market items

### 4.2 Specific project benefits

**Extension of** this activity is proposed in recognition of the ability for EFBs to meet a wide-variety of airline operational needs and to provide a neutral forum to discuss these needs. Airlines are moving quickly to install EFBs, many that are extensible to include all types of flight deck operations and data communications functions.

A properly executed effort will allow airlines and suppliers to be on the same page, reduce risk and provide the desired products to the marketplace.

### 4.3 Project Benefit for Airlines

- Enable airlines to influence EFB product evolution to suit their operational needs, leading to greater commonality across fleets.
- **Provide a venue for airlines to have input in forming regulations that govern EFB usage.**
- Common processes for EFB including software handling.
- Ensure flexibility when updating EFB, selecting and installing EFB products in a way that fits airline operations.
- Cost reduction in airline EFB programs.

### 4.4 Project Benefit for Airframe Manufacturers

- Airframe manufacturers will benefit from being able to offer new aircraft models with EFBs and EFB provisions that meet the broadest needs of their customers.
- Airframe manufacturers can continue to offer Class 1, 2 or 3 EFBs and in addition point out to their customers that there is an easy upgrade / downgrade path between the classes.
- Airframe manufacturers can rely on EFB equipment suppliers and choose not to develop EFBs themselves.

### 4.5 Project Benefit for EFB Suppliers

- Opens market opportunities for EFB suppliers to provide desired equipment.
- Will simplify supplier effort to equip different aircraft models.
- Easier to certify and to get operational approval due to commonality and familiarity

## 5. Documents to be Produced and Date of Expected Result

*Reports will be provided of each meeting.*

*APIMs may be developed where the need arises.*

## 6. Meetings/Expected Document Completion

The following table identifies the number of meetings and proposed meeting days. **The three additional years requested will permit six additional meetings.**

Activity	Number of Mtgs	Mtg-Days 2010	Mtg-Days 2011	Mtg-Days 2012	Mtg-Days 2013	Mtg-Days 2014
EFB Users Forum - two 2-day meetings per year	10	4	4	4	4	4

### 6.1 Expiration date for this APIM

**December 2014**

## 7. Comments

*The EFB Users Forum can discuss experiences with many aircraft installations.*

*Embraer is delivering EFB class 2 and 3 versions.*

*Bombardier plans EFB options for the C-series.*

*A320 family aircraft are available with EFB full options from 2010.*

*The A350 EFB (EFB class2 is basic option) and NSS definitions will also benefit from discussions held within the EFB Users Forum.*

*The A380 comes with a Network Server System (NSS) that hosts an EFB called Onboard Information System. EFB class 2 and 3 are used by operators.*

***B737NG, Boeing Business Jets (BBJ), B747-4, B747-8, B757, B767, and B777 are available with Class 3 EFB options.***

*The B737NG is also available with a Boeing Class 2 EFB option.*

*The B787 comes with **two Class 3 Electronic Flight Bags basic.***

***Boeing also offers a Class 1 EFB.***

For AEEC staff use only:

Date Received:

AEEC staff assigned:

Potential impact:

*(Safety, Regulatory, New aircraft/system, other)*

Forwarded to (AEEC, AMC, FSEMC):

Date Forwarded:

Resolution:

Date of Resolution:

*(Withdrawn, Authorized, Deferred, More detail needed, Rejected)*