AEEC SAI Timely Recovery of Flight Data (TRFD) Meeting #1

Date: April 11th, 2018

Location: London, UK

Attendees:

Name	Organization
Greg Moran	Boeing
Hannes Griebel	Inmarsat
Bill Waggener	L3 Technologies
Greg Smith	NTSB
Tom Pack	Acrartex
Adam Mottram	Rockwell Collins
Blake Vandenheuvel	DRS
Tim Hayosh	American Airlines
Steve Newell	Flyht
Dave Blackwell	Spidertracks
Claude Pichavant	Airbus
Christian Belleux	Orolia
Mike Weed	L3 Technologies

Please send any corrections or additions to Greg Moran and Hannes.

Discussion:

Organization

Team members vary with regard to their interest in either deployable recorder, transmission of flight data or both technologies. An agenda will be provided for each meeting or teleconference so that team members can choose to participate if interested.

Doodle polls will be used to schedule TRFD teleconferences. Proposed duration of two hours starting 07:00 Pacific / 10:00 Eastern / 15:00 UK / 16:00 Hamburg separate from AEEC SAI weekly Global Aircraft Tracking (GAT) teleconferences.

It is proposed to discuss TRFD statement of work at meetings in Memphis (June, 2018), Kelowna (August, 2018) and Hawaii (October, 2018).

TRFD deliverables and schedule are as discussed in APIM 17-005 section 5.1. Our goal to generate a draft report addressing phases 1 & 2 in time for discussion at the Hawaii meeting, ahead of the APIM schedule.

Activity	**Start Date**	**Completion Date**
Phase 1: document the end-to-end system requirements	June, 2018	December, 2018
i. Define TRFD requirement source documents (ICAO SARP, industry standard, regulation)		
ii. Define TRFD functional block diagram		
iii. Capture requirements and recommendations from source documents		
iv. Identify any additional requirements and recommendations		
v. Allocate requirements and recommendation to functional blocks		
Phase 2: develop candidate architectures and select architecture(s)	January, 2019	December, 2019
Phase 3: develop detailed equipment interface, and aircraft installation requirements, as well as ground system requirements	January, 2020	September, 2020

Technical

What is the definition of "timely"? ICAO document 10054 section 3.3.2 discusses a definition of "timely" with regard to flight data recovery.

Where is the availability of connected services discussed? ICAO document 10054 section 3.6.11 discusses availability and allowable types of connected services.

Where is the impact of weather on connected service availability discussed? This aspect is not discussed explicitly in ICAO document 10054.

Is it expected that transmission of flight data would preclude recovery of fixed recorders? No. It is expected that efforts would be made to recover human remains, and aircraft wreckage for incident investigation.

Why does ICAO document 10054 not address airborne image recording for transmission of flight data? At the present time, ICAO SARPs do not require airborne image (also known as flight crew-machine interface) recording. ICAO document 10054 section 3.6.9 defines the format of flight crew-machine interface recordings, which are not required to be transmitted per section 3.6.10.1. It is expected the next ICAO Annex 6 revision will specify "flight crew-machine interface" recording for new type certificate that allows either cockpit cameras or other means (such as screen capture) to record information displayed to the flight crew from electronic displays.

How are privacy concerns addressed for transmission of CVR audio? ICAO document 10054 sections 3.3.6 and 3.6.1 discuss data protection for transmitted CVR audio, and section 3.6.12 discusses erasure of CVR (and AIR) data.

A concern was raised about the time required to validate data frame definition for transmitted flight data, should this not align with what data is sent to the FDR. ICAO document 10054 section 3.6.7 discusses the format of FDR data, including data frame documentation requirements. The document recommends transmission of the entire FDR data frame if sufficient bandwidth is available, but allows

for transmission of mandated FDR parameters to account for the case where insufficient bandwidth exists to transmit the entire FDR data frame.

Actions:

Open -

ID	Action	Assigned	ECD
180411-A	Compile requirements source documents	Hannes / Greg Moran	27 April 2018
180411-B	Compile requirements from source documents into spreadsheet. "shall" = minimum requirements "should" = recommendations	Greg Moran	11 May 2018
180411-C	Draft TRFD functional block diagram	Greg Smith	11 May 2018

Closed –

<none>