16TH MEETING OF THE ISPACG FANS INTEROPERABILITY TEAM (FIT/16)

Santiago, Chile, 26–27 March 2009

FIT Meeting Summary

1   **Feedback from the Operators**

All the operators expressed their continued interest in the additional efficiency gains which can be achieved with the full implementation of User Preferred Routs (UPR) and Dynamic Airborne Route Procedures (DARP). Several operators participated in special "Green" flight trials last year and it was interesting to note that ~85% of the total savings from these special flights are available to operators on a daily basis if full time DARP and Tailored Arrival procedures were extended as planned to Los Angeles International airport. The operators stress the need to continue to remove roadblocks inhibiting full time use of UPR, DARP and Oceanic Tailored Arrivals.

Both ANZ and Qantas wanted to express their appreciation for the work undertaken by the FAA in support the Tailored Arrival trials in SFO over the last year and the recent trials in LAX. The operators confirmed the savings were significant and that they look forward to the planned implementation of Tailored Arrivals in LAX.

2   **Feedback from Air Navigation Service Providers**

In general operations over the last year have continued to improve slightly from a latency standpoint. There is still a serious concern in the overall SATCOM system availability. The FIT recommends that ISPACG note this concern and continue to work this issue in conjunction with other industry stakeholders. The meeting noted that the FAA is conducting an internal study on this issue and are expected to also support stakeholder meetings on this issue once their internal study progresses.

The meeting was pleased to note that all the ANSPs are taking steps to enable and allow full use of UPRs and DARP. Specifically Tahiti is undergoing DARP trials now and looking forward to full implementation of UPR and DARP later this year.

In addition the meeting learned that Fiji will be procuring a new automation system expected to be commissioned in April, 2010. This new system is being designed to enable the full implementation of UPR and DARP procedures.

The meeting was pleased to officially recognize DGAC, Chile to the FIT meeting. Their system is moving at a high rate toward the implementation of full FANS functionality.

JCAB, Japan informed the meeting that 65% of the aircraft flying in their FIR are FANS equipped. However only 16% of the aircraft were RNP4 approved. Both Boeing and Airbus were urged to coordinate with their respective customers with an aim toward achieving a higher percentage of RNP4 approval.

Airways New Zealand has undertaken an extensive effort to support the development of new data monitoring requirements in support of the Global Operational Data Link Document (GOLD). They provided the meeting with a thorough and extensive review of the data analysis and conclusions they have drawn from this enhanced data monitoring effort. It was interesting to note the data shows a marked improvement in overall system performance when operators transition to the high-speed SATCOM links. It was equally interesting to note how poor-performing aircraft or aircraft types can degrade system performance. The meeting wanted to specifically recognize the extensive work undertaken by Paul Radford of Airways New Zealand in support of defining the new monitoring standard.

One ATSU raised a concern regarding aircraft declaring themselves "negative RNP 4" after loss of data link. The issue was discussed and the meeting noted that new flight crew guidance material is being added into the GOLD. The current draft guidance material addresses this issue and will propose standard flight crew phraseology.

The meeting was made aware of an emerging issue concerning how requirements and procedures are being conveyed to new South Pacific operators such as Delta, Air Canada, and V Australia. Although these issues should be addressed during the normal operational approval process, the OEM's took an action item to coordinate with operators helping to ensure they have the latest version of the GOLD. The FAA also urged regulators to continue to stay abreast of the latest procedures and to communicate with operators.

3   **Feedback from DSPs**

Both ARINC and SITA informed the meeting that they have been working together with a goal of improving overall SATCOM system latency and availability numbers. They recognize that they aren't yet making the "4-9s" availability mark however they will continue to work toward that aim. They are working with INMARSAT regarding use of both classic and SBB services over I4s. Both DSPs are anticipating commencing trials of "classic" SATCOM running over the newer I4 satellites later this year. The meeting recognized an improvement in system outage notifications from both DSPs which has been a subject of much discussion in the FIT over the last several years. However, the meeting noted that there is still room for improvement

as a small number of unreported outages were documented by one ATSU. Both DSPs are supporting the planned FANS-over-Iridium trial scheduled to commence later this year.   ARINC informed the group that Hawaiian Airlines were conduction FANS trials using HFDL with Oakland center. Although the trial data have shown some marked improvement during the trial period, HFDL has not yet met the RCP-400 performance requirements. Trials will continue and future procedural and system improvements are expected to allow HFDL to meet RCP-400 requirements.

4   **Problem Reports**

The CRA received approximately 100 South Pacific problem report correspondences, resulting in documentation of 47 new Problem Reports. The remaining PRs were duplicates of existing Problem Reports or did not merit a PR being written because they covered known equipment failures or resulted from normal operation of the system.

A sidebar discussion was undertaken by a group of stakeholders to address a particular PR addressing processing of route clearance uplinks by A380 aircraft. The meeting was informed that Airbus and selected ANSPs will undertake additional testing between test bench facilities and selected ANSPs with an aim to validate crew procedures developed during the sidebar. Once these procedures are validated

Airbus will promulgate these crew procedures to all A380 operators until a more comprehensive system fix is available.

5   **Progress toward the GOLD standard**

ICAO recognized and thanked the extensive work by the FAA in leading the transition to GOLD. The FAA urged IFALPA and IATA take this opportunity to continue to stay involved and facilitate harmonization of datalink procedures. Additional GOLD working meetings are scheduled over the next several months and it is anticipated transition to GOLD will be complete by the end of the year.

At some point in the future it is expected that the document will eventually be given an ICAO document number. However, for the document to remain useful, a mechanism to support timely updates needs to be developed.

6   **ANSP system performance monitoring**

The meeting again recognized the comprehensive work being undertaken by Airways New Zealand in support of developing new monitoring requirements. These new system performance monitoring requirements are designed to help identify trends and identify early and timely performance issues. Although these new monitoring requirements will not be finalized until completion of the work on GOLD, states are encouraged to study the working papers presented during the meeting regarding monitoring and start to develop procedures plans and budget to support performance monitoring in conjunction with their existing State Safety Program (SSP).

7   **INMARSAT SATCOM system performance**

The FAA updated the meeting on the progress being made by the SATCOM Improvement Team (SIT) with regard to SATCOM system performance. Although much work has been accomplished and performance improvements are being realized, additional work is required. SATCOM system availability continues to be an issue and, as mentioned above, ISPACG is encouraged to ensure future work plans address this important issue.

8   **IRIDIUM**

The meeting noted significant progress was made last year in an effort to qualify Iridium SATCOM systems for use with ACARS and, potentially, FANS voice and data link communications. The meeting noted that both ARINC and SITA launched ACARS-over-Iridium commercial services. Operators are equipping aircraft with Iridium systems. The meeting also noted that the PARC Communication Working Group is developing an Iridium project plan to establish a FANS-over-Iridium trial to evaluate the feasibility of using the Iridium SATCOM system for FANS CPDLC and ADS data link and ATC voice communications. The meeting noted that FANS Over Iridium trials in the Pacific (Oakland, Japanese, and Australian airspace) this summer.

9   **Problem Report Database**

The meeting was informed that Airways New Zealand is offering to host a problem report data base on a free of charge basis with the goal of assisting South Pacific states and other regions using FANS to identify, track, and capture the work completed on the resolution of individual problem reports worldwide. Initially this work would start with FANS1/A users, such

as ANSPs, CSPs, operators, etc., in the South Pacific, with the aim to expand to other sub-regions of the Asia-Pacific region. Eventually, we would like to see a global database, either common or distributed, for this purpose and potentially being hosted on an ICAO site. The CRA gratefully accepted this offer as server security rules at The Boeing Company have made it impossible for the CRA to host such a website. Initial requirements for this database were sketched out during a sidebar discussion.

10   **SATCOM Voice**

The meeting discussed the recent push by the FAA-sponsored Communication Working Group, the North Atlantic region in support of approving SATCOM voice communications equivalent to HF for routine communications. Participants highlighted several technical and operational issues which will need to be addressed as this work is progresses. Issues such as voice phraseology, appropriate ground infrastructure, appropriate aircraft configurations, contractual issues, and security concerns were some of the issues which were highlighted.

There was also concerns raised by the FAA and ICAO that approval of SATCOM voice for routine communications would erode benefits gained over the last several years with use of CPDLC communications. The meeting recognized the concern and reminded participants that overall goal of seeking SATCOM approval as a long range communication system was to provide additional communication tools for both flight crews and radio operators, not to erode benefits gained from CPDLC. There are communication needs which come during in-service operations which are not supported by use of CPDLC. Although it was recognized that there is still much work to be done the meeting was in general agreement that approval as a Long Range Communication System (LRCS) will provide benefit.

Attachment A   FIT 15 Action Item List

	Action	Assignee	Status
	Assess ATSU compliance with Oceanic SPR Document (DO-306/ED-122)	ATSUs	Closed
	Bring forward ATSU SPR compliance to other bodies	FATBOB, IPACG, NATFIG	Open
	Ensure airframe documentation includes appropriate guidance so that crew response times will meet SPR.	Airframe Manufacturers	Closed
	Continue analysis of ADS predicted route data to determine root causes of ETA unavailability and errors	CRA, ASA, ACNZ	Closed
	Provide RFC to emphasize need to confirm data authority	ASA	Ongoing - Gold
	Develop new monitoring requirements in alignment with Oceanic SPR standard and propose RFC to align the FOM.	Data link working group	Ongoing - Gold
	Complete review of the FOM with a goal of achieving adoption of the FOM by all regions providing FANS services	Airservices Australia	Ongoing - Gold