International Civil Aviation Organization

The Twentieth Meeting of the APANPIRG ATM/AIS/SAR Sub-Group (ATM/AIS/SAR/SG/20)

Singapore, 05 − 09 July 2010

Agenda Item 6: Review of ATS Coordination Group Meetings

SUMMARY REPORT OF THE TENTH MEETING OF FANS IMPLEMENTATION TEAM FOR SOUTH-EAST ASIA (FIT-SEA/10)

(Presented by the Secretariat)

SUMMARY

This paper summarizes the report of the Tenth Meeting of FIT-SEA for review by the meeting. Action by ATM/AIS/SAR/SG/20 is at paragraph 3.

This paper relates to

Strategic Objectives:
A: Safety – Enhance global civil aviation safety
D: Efficiency – Enhance the efficiency of aviation operations

Global Plan Initiatives:
GPI-17 Implementation of data link applications

1. INTRODUCTION

1.1 The Tenth Meeting of FANS Implementation Team for South-East Asia (FIT-SEA/10) was held in Singapore on 24 May 2010.

2. DISCUSSION

Central Reporting Agency

Report of FIT-SEA

2.1 CRA-Japan presented the status of ATS data link operational performance provided by the Civil Aviation Authority of Singapore (CAAS) and the Civil Aviation Administration of Viet Nam (CAAV) in accordance with the established procedures. CRA-Japan noted that the system performances in the Ho Chi Minh FIR were quite satisfactory but the performances in the Singapore FIR for the downlinks did not meet the FOM criteria.

2.2 Since FIT-SEA/9 (May 2009, Bangkok), CRA-Japan had not received any problem reports (PRs) for 12 months from Viet Nam. Singapore had submitted eight PRs covering the period of past 12 months just before the meeting.

2.3 The meeting reviewed the information contained in the system performance analysis by CRA-Japan. The meeting had a lengthy discussion why the problem report (PR) was not widely reported as compared with other regions. IATA informed the meeting that the ACARS reporting system were being used in the South Pacific and this could be used for the long-term solution. The meeting encouraged FIT-SEA stakeholders to provide reports of any anomalies that they might experience. Prompt and full reporting of such events to the FIT-SEA CRA will allow any deficiencies to be identified and rectified.

Consideration of the Termination of FIT-CRA Services by CRA-Japan

FOM Definitions of FIT and CRA

2.4 Japan drew to the attention of the meeting that the current FOM Version 6.0, effective 25 September 2008, provide for the roles of FITs and CRAs in Sections 3.7 and 3.8, respectively. FITs shall oversee the monitoring process to ensure the FANS-1/A system continues to meet its performance, safety, and interoperability requirements, and that operations and procedures are working as planned.

2.5 CRAs are organizations tasked with the regular dissemination of de-identified statistical data based on monthly status reports received from FIT members. The CRAs track problem reports and publish de-identified information from those reports for dissemination to FIT members. Problem resolution is the responsibility of the appropriate FIT members. The CRAs:

a) prepare consolidated problem summaries dissemination to interested parties;

b) collect and consolidate FANS-1/A Periodic Status Reports and disseminates;

c) examine all data to identify trends; and

d) prepare an annual report for the FIT.

ICAO Safety Management Provisions in Annex 11

2.6 CRA-Japan had reported to FIT-SEA/9 (May 2009, Bangkok) that PR analyses could not be presented because the CRA did NOT receive any PRs after FIT-SEA/8 (May 2008, Bangkok). FIT-SEA/9 noted that there had been no PR for 12 months from Singapore and Viet Nam. From their experience in the North Pacific where hundreds of PRs are reported, the situation of no PR in the South China Sea area could not be justified.

2.7 Japan advised at the FIT-SEA/9 that FIT-SEA CRA services had been provided by CRA-Japan on a temporary basis in accordance with the TOR of FIT-SEA CRA. Japan, however, would consider extending the provision of the FIT-SEA CRA services for a couple of years if the Philippines was able to initiate the ADS/CPDLC operational trial in the Manila FIR in 2010. The Philippines informed the meeting that the operational trial in the Manila FIR would start in October 2010.

2.8 Japan advised the meeting that they would be able to act as FIT-SEA CRA until the end of next March (March 2011) but NOT be able to continue beyond March 2011, not solely because of its financial resource but also other reasons. The meeting appreciated Japan and CRA-Japan for their services graciously provided free of charge for over three years and recognized the reason why Japan was withdrawing the FIT-SEA CRA services. The Secretariat drew to the attention of the meeting that there could be three scenarios.

2.9 After the confirmation from Japan and clarifications, the meeting noted that the establishment of FIT-SEA CRA by the States concerned was the only viable option and that funding issues need to be further discussed. The States were encouraged to bring this information to the relevant authorities for the further consideration.

2.10 CRA-Japan however noted that support for data link implementation in the Manila FIR would be vital and that a formal CRA for FIT-SEA should be established as soon as possible in order not to stall the implementation plans. States were urged to bring back this issue to the attention of their relevant authority and be ready for the further discussion at ATM/AIS/SAR Subgroup and APANPIRG meetings, bearing in mind the time constraint that was needed to establish a proper CRA. The meeting requested the Secretariat to submit a working paper to ATM/AIS/SAR/SG/20 for the further deliberation on this issue.

Review of ADS/CPDLC Implementation

ADS/CPDLC Implementation in the Ho Chi Minh FIR

2.11 Viet Nam has officially started providing data link services on eight RNAV routes L625, L628, L642, M765, M768, M771, N500 and N892 in the oceanic area of the Ho Chi Minh FIR since 0001 UTC on 10 April 2008.

Operation Status

2.12 The status of ADS/CPDLC operations:

- only half of 200 flights had been equipped with both ADS and CPDLC; and
- 65 flights initiated the logon daily and 98 present could log on successfully.

2.13 Technical status:

- Ground system: There was no modification to ground system.
- ACARs link: There was no unplanned interruption and stable.
- Data link transfers with Singapore ACC are taking place smoothly.

2.14 Periodic Status Reports: The periodic status reports had been made weekly and sent to CRA-Japan for analysis, and there was no recommendation for any correction received from the CRA. Singapore queried if the interval of one week was still appropriate as Ho Chi Minh was no longer on trial. The Secretariat brought the attention of the meeting to the FOM which provides that the interval could be decided by FIT and the fact that FIT-SEA had not agreed with any interval. Accordingly, Viet Nam and CRA-Japan coordinated to review this interval. CRA-Japan agreed that Viet Nam could submit the periodic status report once every month.

Review of ADS/CPDLC Operations in Singapore FIR

2.15 As specified in FOM, the monthly periodic status reports were prepared and submitted regularly to CRA-Japan. The reports showed that the data link performance is within the FOM criteria except for downlinks. As previously noted at FIT-SEA/9, there were performance issues for downlink in both Singapore and Ho Chi Minh FIR last year. This was a known performance issue that was attributed to the B777 types which formed a majority of the aircraft types operating FANS in Singapore FIR.

2.16 Boeing had reported that a fix will be provided to the operators. Airborne trials with AIMS-2 (with one test originating from Singapore Changi airport) and AIMS-1 software had been completed. The upgraded AIMS-2 software will be retro-fitted to existing B777s, with AIM-1 software targeted for Jun/Jul 2010. However it is expected it would take time for all the aircraft to be updated. Update to the AIMS-2 software is expected to begin in 4th quarter 2010.

2.17 In Feb 2010, Singapore carried out a detailed study of the occurrences of the marginal downlink performance. Most of the occurrences were found to be in the VHF-SATCOM transition areas. The results validated that the poor downlink performance was correctly attributed to the B777 problem. Singapore will continue to monitor this issue and provide an update at the next meeting.

Data Link Guidance Materials

2.18 The status on the Global Operational Data Link Document (GOLD) was provided and FIT-SEA began planning and implementation for its use. The meeting recalled that the 20th Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/20, September 2009) concluded to endorse the GOLD, upon its release to the North Atlantic (NAT) Region, as a replacement for the FOM. Coordination with Africa and Indian Ocean (AFI), European (EUR) and South America (SAM) Regions would require additional time after this release. However, the GOLD was expected to be satisfactorily completed in time for NAT SPG/46 conclusions. On matters related to the GOLD, APANPIRG/20 had reached Conclusion 20/31 – State and Operator aircraft information for GOLD, Conclusion 20/33 – Coordinate Implementation of Reduced Horizontal Separations with CSPs and Conclusion 20/74 − Adopt GOLD to replace FOM.

Regional Change Process for the GOLD

2.19 After the Ad Hoc Working Group releases the GOLD to ICAO Bangkok and Paris Offices for regional use, the GOLD will be maintained as a regional document in each of the regions. Change proposals (CPs) will be submitted to an ICAO regional office. The ICAO regional office will coordinate with other participating regions.

Any Other Business

Preparations for ADS/CPDLC Trial Operation in Manila FIR

2.20 During FIT/SEA-9, the Philippines informed the meeting that the current system of Manila ACC would be replaced by a system that has built-in data link capabilities. In connection with this, data link trials were planned for the fourth quarter of 2010.

2.21 The Philippines informed the meeting of Phase 1A of the operational trial plan, which would involve a CPDLC trial with limited airline participants in parallel use of HF voice communication and validation of ADS reports using the new Manila ACC system. Plans for the Phase 1B of the trials have already been laid-out. A detailed presentation of the preparations for the data link trials was provided. The ADS/CPDLC refresher course for Manila ACC Controller was carried out as planned in 2009.

2.22 The meeting advised the Philippines that the implementation of data link systems should be closely coordinated with FIT and CRA. Further, the Secretariat advised the Philippines to start data collection of the system performance as early as possible to enable a FIT-SEA meeting could be held three months before the Phase 1B, i.e. October 2010 given the Phase 1B should start in January 2011. If the FIT-SEA meeting finds that their system performance meets the FOM criteria, subsequently AIC and/or AIP Supplement will be issued with two AIRAC cycles to announce the commencement of the Phase 1B where all the aircraft use CPDLC as a primary means of

communication. In total, it will be at least six months from the beginning of the data collection to the commencement of the Phase 1B. The Philippines agreed to consider the suggestion.

Data Link Implementation Table for Capacity Planning

2.23 The meeting reviewed and updated the table with the report from the Philippines on their data link trial planned in Q4 of 2010 and the planned full operations in 2012.

Outcomes of RASMAG/12

2.24 RASMAG/12 was held at the Regional Office, Bangkok, Thailand from 14 to 18 December 2009. The meeting reviewed the outcomes of RASMAG/12 in terms of data link operations and FIT/CRA.

Summary Report of the 12th Meeting of the FIT for the Bay of Bengal

2.25 FIT-BOB/12 (February 2010, Bangkok) was held in conjunction with the Second Meeting of the Bay of Bengal Reduced Horizontal Separation Implementation Task Force.

ADS/CPDLC Problem Reports in the Bay of Bengal

2.26 ATSUs were encouraged to automate the connection sequence. Ground automation systems should use the uplink message assurance (MAS) messages to inform controllers that a message was not received by the aircraft. ATSUs were encouraged to increment the uplink Message Identification Number (MIN) from zero to sixty-three. ATSUs were encouraged to include the optional UTC time stamp with uplink messages.

Review of the Bay of Bengal Data Link Seminar in 2009

2.27 The meeting reviewed the report of the Data Link Seminar held at ICAO Asia and Pacific Office, Bangkok, Thailand on 24 and 25 August 2009 in conjunction with the Eleventh Meeting of the FANS Implementation Team for the Bay of Bengal (FIT-BOB/11).

IPACG FIT

2.28 Informal Pacific ATC Coordinating Group (IPACG) FANS Interoperability Team (FIT) Central Reporting Agencies (CRAs) continued to process Problem Reports (PRs) received from operators and service providers in the North and Central Pacific. Since the beginning of IPACG/FIT, CRA-Japan had processed a number of reports submitted by stakeholders regarding the problem events in the Fukuoka FIR. At FIT/19 (10-14 May 2010, Honolulu) held in conjunction with IPACG/32, totaling 14 PRs received in recent six months were reported.

2.29 The Extracts from the PRs presented at last IPACG32 and FIT/19 were provided that were received and processed by the CRA-Japan in Fukuoka FIR. The latter part of the extracts introduced the Oceanic Air Traffic Control Suit and functions in use now and in the near future at Fukuoka Air Traffic Management Center.

3. ACTION BY THE MEETING

3.1 The meeting is invited to review the contents of this paper.

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