International Civil Aviation Organization

The Twelfth Meeting of the FANS Implementation Team, Bay of Bengal (FIT-BOB/12) and the Second Meeting of the Bay of Bengal Reduced Horizontal Separation Implementation Task Force (BOB-RHS/TF/2)

Bangkok, Thailand, 22 − 26 February 2010

Agenda Item 8: Any Other Business

SUMMARY REPORTS OF THE FANS IMPLEMENTATION TEAM, SOUTH-EAST ASIA (FIT-SEA)

(Presented by Secretariat)

SUMMARY

This paper summarizes the reports of the Ninth Meeting of the FANS Implementation Team, South-East Asia (FIT-SEA/9) for review by the meeting.

1. INTRODUCTION

1.1 Two FITs, i.e. FIT-BOB and FIT-SEA, have been established in Asia/Pacific Regions. Since reported at FIT-BOB/10 (July 2008, Mumbai), the FIT-SEA of Southeast Asia ATS Coordination Group (SEACG) held the following meeting:

a) FIT-SEA/9 - 11 June 2009 (combined with the 16th Meeting of SEACG).

1.2 The meeting report is summarized below for review by the meeting.

2. DISCUSSION

Central Reporting Agency

Statistical Analysis on System Performance

2.1 Central Reporting Agency – Japan (CRA-Japan) was designated as FIT-SEA CRA by FIT-SEA, and has been supported by Air Traffic Control Association - Japan (ATCA-J). The meeting noted that FIT-SEA CRA had been providing the CRA services according to the terms of reference (TOR) that was agreed upon by FIT-SEA/3 (November 2005, Bangkok).

2.2 FIT-SEA/7 (January-February 2008, Fukuoka) agreed that the phase 2 operational trial of data link in the Ho Chi Minh Flight Information Region (FIR) could move on to the regular operations. The regular operations were commenced on the eight oceanic RNAV routes L625, L628, L642, M765, M768, M771, N500 and N892 in the Ho Chi Minh FIR from 10 April 2008.

2.3 CRA-Japan made a presentation under the Report of FIT-SEA CRA on their activities, the statistical analyses on system performances such as CPDLC downlinks, uplinks, uplink messages success rate and auto transfer success rate for both the Ho Chi Minh and the Singapore FIRs. There were performance issues detected for downlink performance in both FIRs.

2.4 CPDLC performances of downlink in the Ho Chi Minh FIR was 1 minute and 1 second for 95 %, which only marginally met the system performance criterion specified in the *FANS Operations Manual* (FOM, the criterion is 1 minute for 95 %). The performance criterion of 3 minutes for 99 % was met in the Ho Chi Minh FIR. The system performances in the Singapore FIR for downlink were 93.88 % for 1 minute and 98.88 % for 3 minutes. These values did not meet the performance criteria of 95 % and 99 % specified in the FOM. However, the CPDLC performances of round trip time both in the Ho Chi Minh and the Singapore FIRs met the system performance criteria specified in the FOM.

2.5 The meeting noted that there had been no Problem Report (PR) for 12 months from Singapore and Viet Nam. From the experience in the North Pacific where hundreds of PRs have been reported, the situation of no PR in the South China Sea area could not be justified.

2.6 IATA informed the meeting that one possible situation could be that aircrew who failed in the establishment of data link connection could contact ATC through the alternative HF radio. The aircrew might not see this situation as problem and therefore did not submit a PR. CRA-Japan commented that a PR should be submitted in a situation like this. Singapore concurred and noted that there could probably had been some missed PRs from the area of automatic transfers (Next Data Authority, NDA) as the success rate was averaging 98%.

2.7 The meeting agreed that aircrew be reminded of the correct PR procedures contained in the Singapore and Viet Nam AIP supplements. In this regard, the meeting concluded that reminding NOTAM should be issued from Singapore and Viet Nam with reference to the respective AIP supplement as appropriate. In the same respect, Singapore and Viet Nam agreed that the operational air traffic controllers needed to review their internal procedures of PR to ensure that PR are duly submitted to CRA-Japan.

2.8 The meeting reviewed the information contained in the system performance analysis, and strongly encouraged FIT-SEA stakeholders to provide reports of any anomalies that they might experience. FIT-SEA CRA (CRA-Japan) emphasized that PR formed the basis for analysis which leads to deficiencies being identified and rectified early.

Typical Problem Report

2.9 Subsequently, CRA-Japan presented some typical PRs experienced in the North Pacific airspace as information for FIT-SEA members.

2.10 Examples of specific PR from the Fukuoka FIR included causes of data link failure, inability to logon and ADS reports with incorrect Intermediate Intend data. As there was no PR submitted to FIT-SEA for similar cases, the Secretariat expressed view that those examples could have occurred in the South China Sea area as well, and encouraged States and operators of FIT-SEA to contribute PR. The meeting thanked CRA-Japan for sharing the information.

Review of ADS/CPDLC Implementation

Performance Analysis by Singapore

2.11 Singapore gave an overview of the data link performance in the Singapore FIR with detailed analysis of delivery performance on the following areas of interest:

i) uplink performance;
ii) downlink performance;
iii) message reject rate;

iv) system availability; and
v) automatic transfer handover (NDA).

2.12 The meeting was informed on the resolution measures which were taken to address the uncharacteristic marginal downlink performance. With the cooperation of SITA, each of the messages was analyzed over a few months. These were broken down into media, type of messages and aircraft types. The results indicated that the downlink performance of the B777 type were lower than the other aircraft types. As the majority of the data link users in the Singapore FIR were the B777 type, these could have brought down the overall performance for the downlink. Discussions with Boeing CRA indicated that a software release to provide a fix was imminent, with May and August 2009 being the dates for AIM-2 and AIM-1 software, respectively. Singapore would continue to monitor the situation closely. The meeting thanked Singapore for identifying the problem.

ADS/CPDLC Operations in the Ho Chi Minh FIR

Operation Status

2.13 Viet Nam reported technical status as follows:

- ATM system has been operated well.

- Data link provided by ARINC is stable to provide ADS/CPDLC applications properly; there were some moments in which the link went to standby link.

- CPDLC up link performance met the FOM criteria.

- CPDLC down link performance at 99 percentile met the FOM criterion. The 95 percentile criterion of 1 minute was nearly met as summarized below:

  January 2009: 01’01”
  February 2009: 01’01”
  March 2009: 01’00”
  April 2009: 00’59”

- Civil Aviation Administration of Vietnam (CAAV) has instructed Vietnam Air Navigation Service Corporation (VANSCORP) to closely work with ARINC and CRA-Japan for analyzing the matter as well as improving this performance.

2.14 Data link transfers from Ho Chi Minh Area Control Centre (ACC) to Singapore ACC had been taking place smoothly. The Periodic Status Reports had been compiled weekly and submitted to CRA-Japan for their analyses.

Review of RASMAG List of Competent Airspace Safety Monitoring Organization

2.15 The meeting reviewed the ‘RASMAG List of Competent Airspace Safety Monitoring Organizations’.

Tables of ADS/CPDLC Equipage and ATS Participation Status

2.16 Philippines updated the table of Southeast Asia ADS/CPDLC Equipage and ATS Participation Status. Philippines indicated that the data link service trial would start by Q3 or 4 of 2010.

Data Link Guidance Materials

FANS Operations Manual Ver. 6 and Updated End-to-End Guidance Material

2.17 ICAO Asia and Pacific Office maintains the Guidance Material for End-to-End Safety and Performance Monitoring of Air Traffic Service (ATS) Data Link Systems in the Asia/Pacific Region. Editorial responsibility for this guidance material lies with the Regional Airspace Safety Monitoring Advisory Group (RASMAG). The ninth meeting of RASMAG (RASMAG/9, May 2008) adopted the Version 3 of the End-to-End guidance material. Up-to-date versions of the FOM (Version 6, September 2008) and the End-to-End guidance material (Version 3, May 2008) are available at http://www.crasa.cra-japan.org and http://www.bangkok.icao.int/edocs/index.html, respectively.

Global Operational Data Link Document (GOLD) Update and Action

2.18 At the Informal Pacific ATC Coordinating Group (IPACG) and the Informal South Pacific ATS Coordination Group (ISPACG) and the respective FANS Interoperability Teams (FIT), it was concluded that a comprehensive review of the FOM should be undertaken with the aim of revising the format and wording used as required to achieve global endorsement of the FOM. This work was being progressed by the Ad Hoc Working Group, which had been coordinating directly with related data link groups, to develop the Global Operational Data Link document (GOLD).

Status of the GOLD

2.19 The meeting noted that the Ad Hoc Working Group had produced the GOLD version 0.4, with 241 pages, for internal use, which contains nearly all the relevant information provided in the *Guidance Material for ATS Data Link Services in North Atlantic Airspace* (NAT GM), the FOM and DO-306/ED-122. The current high-level outline of the GOLD was as follows (parenthesis includes the number of pages for that section):

FOREWORD (3)
1. Definitions (15)
2. Overview of data link operations (TBD)
3. Administrative provisions for data link (14)
4. Operating procedures (62)
APPENDICES (120)

2.20 The Ad Hoc Working Group was proceeding to complete the sections of the document requiring additional information and ensuring complete coverage of the FOM and the NAT GM. In addition, further work was needed to simplify text, ensure consistency in style, clean it up, and streamline the document. While version 0.4 of the GOLD was intended for internal use, the points of contact (POCs) intended to coordinate within their respective regions and/or organizations with guidance to obtain the appropriate level of comments on the GOLD, given the current state of its maturity, so that significant issues can be identified early in the process.

Update Task Lists

2.21 The meeting reviewed and updated the list. Four items had been completed or closed and three new items were added to the list.

Any Other Business

Summary Reports to APANPIRG of Southeast Asia ATS Coordination Group, FANS Implementation Team, Southeast Asia and Southeast Asia RNP Implementation Task Force

Summary Report of the Fifteenth Meeting of Southeast Asia ATS Coordination Group

2.22 APANPIRG/19 reviewed reports of RNP-SEA/TF/7 and 8 with highlights as follows:

a) Affected States supported the 50 NM/50 NM separations on L642 and M771;

b) Target implementation date of 3 July 2008 was agreed;

c) The engagement of a safety assessment expert by Singapore was noted;

d) Amendment to the *Regional Supplementary Procedures* (Doc 7030) was proposed;

e) It was agreed that the safety assessment supported the 50 NM/50 NM separation standards;

f) The title of *"South East Asia Safety Monitoring Agency"* (SEASMA) was noted; and

g) A 'Go" decision for 50 NM/50 NM horizontal separations was agreed.

Status of FANS Data Link Services in the Manila Flight Information Region

2.23 Philippines informed the meeting that budget approval was obtained for the ACC replacement project, which will replace the current equipment with new ones that has build-in data link capability. This was graded as a priority project and data link trials were planned for Q3 or 4 of 2010. In conjunction with this project, the Philippines was commencing ADS/CPDLC refresher course and enhanced simulator training courses from the end of May 2009.

Date and Venue for the Next Meeting

2.24 The meeting agreed that the next FIT-SEA/10 would be held on 24 May 2010 in conjunction with SEACG/17 at the Regional Office.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information.

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