International Civil Aviation Organization

Sixth Meeting of CNS/MET Sub-Group of APANPIRG

Bangkok, Thailand, 15 – 19 July 2002

Agenda Item 2: Aeronautical Fixed service (AFS) Communications

RESULT OF COM COORDINATION MEETING

(Presented by the Secretariat)

SUMMARY

This paper presents the result of a COM Coordination Meeting held in Kunming, China, 18-20 June 2002 for review.

1. INTRODUCTION

1.1 A COM Co-ordination Meeting was held in Kunming, China from 18-20 June 2002. The meeting was hosted by the Air Traffic Management Bureau of CAAC, China.

1.2 The objectives of the meeting were to review status of implementation of the required AFTN/ATS direct speech circuits and to develop a coordinated action plan to implement and upgrade those concerned circuits to satisfy the established operational requirements.

2. DISCUSSION

2.1 The meeting reviewed the requirements of AFTN and ATS direct speech circuit plans for the area considered by the meeting. The relevant Conclusions in the communication fields formulated Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) were also reviewed by the meeting.

2.2 The meeting also reviewed the implementation and current operational status of the concerned circuits. The list of deficiencies in the CNS field updated by APANPIRG/12 meeting held in Bangkok from 20 to 24 August 2001 was also reviewed by the meeting.

2.3 The meeting also noted ICAO Assembly Resolution A33-14, Appendix M which calls for States to give priority to the implementation of those facilities and services, the lack of which, would likely to have a serious effect on international air operations.

2.3.1 The meeting noted that the unreliable AFS communications between Dhaka and Kolkata FIRs is listed as long standing deficiencies in the deficiency list in the CNS filed in the Asia/Pacific region. The target date for completion of the proposed corrective action was June 2002. India provided some updated information on the current status including the provision made for a hotline at Kolkata end to support the direct speech circuit between Kolkata and Dhaka. However, no progress has been made so far for upgrading the AFTN circuit between the two stations.

2.4 **Circuit Performance and loading**

2.4.1 Serviceability and loading statistics for the concerned circuits were reviewed by the meeting. The meeting noted that the Dhaka/Kolkata HF RTT circuit service availability in March and April 2002 was indicated much below 50 percent. In this regard, the meeting was advised of the proposal made at the ATN Transition Task Force/4 meeting for the provision of an alternate routing via Bangkok and Mumbai.

2.4.2 The meeting also noted that the VSAT link used for ATS direct speech circuit between Kunming and Yangon had been out of order due to technical and other problems at Yangon site. The reactivation of the ATS direct speech circuits was discussed during the meeting. China and Myanmar have reached an agreement to reactivate the VSAT link as well as establishment of the new AFTN circuit between Beijing and Yangon by the end of 2002 in accordance with the updated AFTN plan.

2.5 Beijing/Karachi AFTN circuit

2.5.1 China presented a paper proposing solution for upgrading the Beijing/Karachi AFTN circuit capacity. It was noted that the AFTN circuit between Beijing and Karachi is running at 50 baud. It was noted that such capacity could not meet the need to cater for potential AFTN diversion traffic. It would be cheaper to establish a higher speed circuit using VSAT technology. As Pakistan was not able to attend the meeting, this issue was not further discussed by the meeting. China was requested to coordinate with Pakistan to work out a practical action plan for implementation of a VSAT link to upgrade the circuit.

2.6 VSAT technology used for AFS communications

2.6.1 China and Thailand informed the meeting of their experiences of using VSAT technology supporting AFS and AMS communications within their own country and with neighboring countries. It was noted that the serviceability is higher than those private circuits leased from PTT. The MTBF of VSAT module and parts is pretty high. Some VSAT remote stations have been running for more than six years without failure. MTBF for RF outdoor unit is more than 2 years.

2.6.2 The meeting therefore concluded that VSAT technology is identified as an appropriate solution to the last mile (local lead between airport and downtown PTT) problem in the area. In the interest of efficiency and economy, States were encouraged to use the VSAT technology especially for those integrated data and voice requirements where two separate data/voice circuits have been implemented or planned.

2.6.3 Although VSAT is one of reliable means of communication employed by several States in the Region to support AFS communication, it was considered very important to retain necessary spare parts for critical modules and elements, such as redundant channel cards, RF unit, etc. to ensure rapid restoration when breakdown occurs. A reliable power supply system and lightning prevention system was also considered essential. It was recognized that for those VSAT stations providing both ATS direct speech and critical AFTN circuits without the provision of an alternate routing between States, an alternative communication link should be provided in order to ensure required reliability, such as dial up system or separate VSAT system using different satellite.

2.7 Develop Action Plan

2.7.1 The following action plan was agreed by the meeting for implementation within the established time frame.

Time Frame-The definition of time frame indicated in the action plan developed by the meeting is as follows:

IMMEDIATE: Action to be taken immediately after the conclusion of the meeting
MID TERM: Action to be taken within six months
LONG TERM: Action to be taken within one year

2.7.2 **ACTION AGREED NO. 1 IMMEDIATE CHINA, MYANMAR**

That, China and Myanmar take actions to reactivate the VSAT link for implementation of the ATS direct speech circuit between Kunming and Yangon by the end of August 2002.

2.7.3 **ACTION AGREED NO. 2 MID TERM CHINA, MYANMAR**

That, China and Myanmar take all necessary actions for implementation of the AFTN circuit between Beijing and Yangon by the end of December 2002 using VSAT link providing direct connection with Message Switching Systems at both ends.

2.7.4 **ACTION AGREED NO. 3 IMMEDIATE ICAO, BANGLADESH, INDIA AND THAILAND**

That,

1) India upgrade the Kolkata/Mumbai AFTN circuit from dual 50 baud to 9600 bps by the end of September 2002 and inform ICAO Regional Office of the exact date of implementation.

2) Upon receiving notification from India of upgrading the Kolkata/Mumbai AFTN circuit, ICAO coordinate with States concerned for changing the primary AFTN routing for traffic between Kolkata and Dhaka via Kolkata/Mumbai/Bangkok/Dhaka AFTN circuits.

3) Bangladesh, India and Thailand make necessary arrangements for routing changes, as required.

4) Bangladesh and India retain the HF RTT circuit or introduce a dial up link between Kolkata AFTN COM Centre and Dhaka AFTN Station as a backup routing until the Dhaka/Kolkata HF RTT circuit is upgraded to LTT.

2.7.5 **ACTION AGREED NO. 4 LONG TERM INDIA, THAILAND, BANGLADESH**

That,

1) India take positive action for getting approval from concerned regulatory authority for establishment of a VSAT link with Bangladesh preferably using the third party service provider which is available at Dhaka end.

2) Thailand carry out informal consultation with India on technical and financial issues relating to VSAT application for circuits between Dhaka and Kolkata.

3) Bangladesh and India make efforts to establish reliable communication link to upgrade the Dhaka/Kolkata AFTN circuit by the end of May 2003.

2.7.6 **ACTION AGREED NO. 5 LONG TERM - CHINA**

That, China coordinate with Pakistan for upgrading the Beijing/Karachi AFTN circuit from 50 baud to a higher capacity by the end of May 2002.

3. ACTION BY THE MEETING

The meeting is expected to review the result and action plan of the COM Coordination meeting.
