



INFORMATION PAPER

FIFTH MEETING OF THE ALLPIRG/ADVISORY GROUP

(Montreal, 23 – 24 March 2006)

Agenda Item 5.3: Coordination between the regions and between the Regional Offices and Headquarters

DEDICATED SATELLITE COMMUNICATION NETWORK (DSCN)

(Presented by India)

SUMMARY

This paper provides an overview on implementation of Dedicated Satellite Communication Network (DSCN) in India for enhancement of voice and data communication among various airports and aeronautical communication Stations in India. The system will have VSAT Terminals at 80 airports with full redundancy including in the space segment for highly reliable communication

Action by ALLPIRG/5 is in paragraph 5.

1. INTRODUCTION

1.1 This paper provides an overview on implementation of Dedicated Satellite Communication Network (DSCN) in India for enhancement of voice & data communication among various airports /aeronautical communication Stations in India.

2. BACKGROUND

2.1 Voice and data communication in AAI currently depends upon terrestrial communication links leased from the DoT which have been found to be deficient in meeting some of the critical operational communication requirements for Air Traffic Services (ATS). AAI is in the process of establishing a Closed User Group Network for various AAI owned airports to meet diverse requirements of communication with the deployment of VSAT Terminals and associated hardware / software at 80 airports.

3. INITIATIVES TAKEN

3.1 Purchase order for the supply and installation of DSCN has been placed at a total cost of INR 120 million. The DSCN system consists of 80 VSAT stations located throughout the country with two Network Management Systems (NMS) located at Delhi and Mumbai airports. Bandwidth of 18MHz is being hired from each of the two Indian Satellites INSAT 3A and INSAT 3E. The system will be fully owned and operated by Airports Authority of India.

3.2 The DSCN once fully established, will support the following communication facilities:

- 1) Voice communication between airports
- 2) Exchange of aeronautical communication messages between airports
- 3) Remote operation of VHF air ground communication equipment (RCAG Channel)
- 4) Remote monitoring and telemetry of unattended remotely located CNS Facilities
- 5) Satellite Navigation
 - i) Ionospheric modeling: to transfer data between MCC and TEC stations
 - ii) Error Correction: to transfer error data to MCC
- 6) Networking of Radars
- 7) Inter networking of AAI computers/LANs (LAN Channel)
- 8) Video conferencing
- 9) FAX

4. CURRENT STATUS

4.1 Supply of equipment has been completed. Installation of the DSCN equipment is in progress. The commissioning of full system is likely to be completed by August 2006.

5. ACTION BY ALLPIRG

5.1 The ALLPIRG/5 Meeting is invited to note the above initiatives taken by India for improving the reliability of communication systems.

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