



International Civil Aviation Organization

Future Air Navigation Systems Interoperability Team-Asia (FIT-ASIA)

Bangkok, Thailand, 27 August 2012

Agenda Item 4: Data Link Guidance Material

INDIA AIDC IMPLEMENTATION

(Presented by Airports Authority of India)

SUMMARY

This paper summarizes the present status of AIDC implementation in India and related issues with adjacent ATSUs in the sub-region.

This paper relates to -

Strategic Objectives

A: Safety - *Enhance global civil aviation safety*

Global Plan Initiatives:

GPI-9 Situational awareness

GPI-16 Decision support systems and alerting systems

GPI-17 Data link applications

GPI-22 Communication infrastructure

1. INTRODUCTION

1.1 This meeting may recall that Regional Air Safety Monitoring Advisory Group (RASMAG) has recognized ATS Inter-facility Data Communications (AIDC) as an effective tool to reduce manual intervention and ground-ground coordination errors between adjacent ATS Units.

1.2 In order to meet this commitment, India is in the process of implementing AIDC within ATC centres in India and has a plan to establish AIDC with adjacent ATS Units of neighbouring states in the sub-region.

2. DISCUSSION

2.1 Besides the state-of-the art Raytheon AutoTrac3 ATS Automation system in Mumbai and Delhi, Chennai is equipped with an advanced version of Raytheon ATS Automation System Auto Trac3+. Bangalore and Hyderabad are equipped with Selex ATS Automation system. In pursuit of modernization of CNS/ATM systems, India has recently deployed the Indra AIRCON 2100 ATS Automation systems at 38 other ATC Centers which include Trivandrum, Guwahati, Ahmadabad, Nagpur, Varanasi, Mangalore, Cochin and Amritsar airports. All these ATS Automation Systems are capable of handling AIDC. India is currently using the APAC AIDC ICD version 3 for AIDC implementation.

2.2 The 3 OEMs have completed necessary software up-gradations and are continually improving the software to remove errors and to provide high levels of reliability and accuracy. Trials have been carried out extensively and results have been encouraging. The ATS Units participating in the AIDC operations and/or testing/trials have established a process of mutual coordination to resolve interoperability issues as well as consequential issues, for example, the effect on AMAN of a receiving centre's ATS Automation system given a particular configuration of the FPL Message. After the trials, many of the interoperability issues between different ATS Automation Systems have been resolved; however, a few issues remain. The interoperability issue is a deterrent to a complete successful implementation.

2.3 The information exchanges in support of critical ATC functions between ATC application processes within Automated ATS systems will be achieved via AFTN/AMHS networks. India has carried out extensive AIDC trials between different ATSUs within India. The trials have established that the existing AFTN/AMHS facilities in India are fully capable to handle/relay AIDC messages.

2.3 It is to be noted that India shares boundaries with adjacent ATSUs of MID and AFI Region states. India has a plan to establish AIDC with adjacent ATS units of different states viz. Bangladesh, Myanmar, Pakistan, Seychelles, Malaysia, Indonesia, Sri Lanka, Kenya, Oman and Maldives. A special focus is on the implementation of AIDC between Mumbai-Karachi (Pakistan), Mumbai-Muscat (Oman), Kolkata-Dhaka (Bangladesh) and Chennai-Kuala Lumpur (Malaysia). Efforts are being made to coordinate with these states for early and successful AIDC implementation.

2.4 Though India is ready for early AIDC implementation, the plans and readiness of other states are presently not available. The success will now depend on bilateral cooperation between concerned states. *Moreover, there is a need for a standardized single ICD version for all the regions of ICAO to achieve harmonious implementation.*

2.5 APAC Regional Office is insisting states to present a realistic target date of AIDC implementation in FASID Table CNS-1E instead of vaguely using "TBD". It is pertinent to note that the provision of realistic date of implementation is possible only when the states involved are able to plan their activities concurrently and exchange and coordinate their plan and modalities with concerned states to achieve harmonious AIDC implementation in the Region

3. ACTION BY THE MEETING

The meeting is invited to:

- a) note the contents of this working paper;
- b) urge states to share their plan with concerned states for an expeditious AIDC implementation in the region in a time bound manner;
- c) consider having a common ICD version to remove the interoperability issues among the states of different region; and
- d) devise a mechanism whereby ICAO sensitizes OEMs on the need for common system standards and also consider their participation in specific ICAO forum(s) to alleviate the inter-operability issues.
