International Civil Aviation Organization

Twenty Fifth Meeting of the Communications/ Navigation and Surveillance Sub-group (CNS SG/25) of APANPIRG

Video Tele-Conference,18 – 22 October 2021

Agenda Item 3: Aeronautical Fixed Service (AFS)

3.5 Other AFS related issues

FUTURE PLANS FOR IMPLEMENTATION OF NEW ICAO SARPS COMPLIANT AMHS IN INDIA

(Presented by India)

SUMMARY

This paper presents India's plan to implement an ICAO SARPS compliant PAN-INDIA AMHS thereby completely replacing the AFTN and the existing AMHS.

1. INTRODUCTION

1.1 India has four Flight Information Regions (FIR's) namely Chennai, Mumbai, Delhi & Kolkata. There are 13 adjacent International FIR's i.e. Lahore, Karachi, Muscat, Sanaa, Mogadishu, Seychelles, Mauritius, Maldives, Colombo, Jakarta, Kuala Lumpur, Yangon, Dhaka, Kathmandu.

1.2 India has earlier successfully implemented AMHS with its neighboring BBIS and BIS stations. India has plans to implement an ICAO SARPs compliant PAN-INDIA AMHS system with capability to harness all the benefits of AMHS and support all the new formats like iWXXM, FIXM & AIXM etc.

1.3 This paper presents India's plans for the future implementation of AMHS.

2. DISCUSSION

2.1 India's present AMHS and AFTN setup

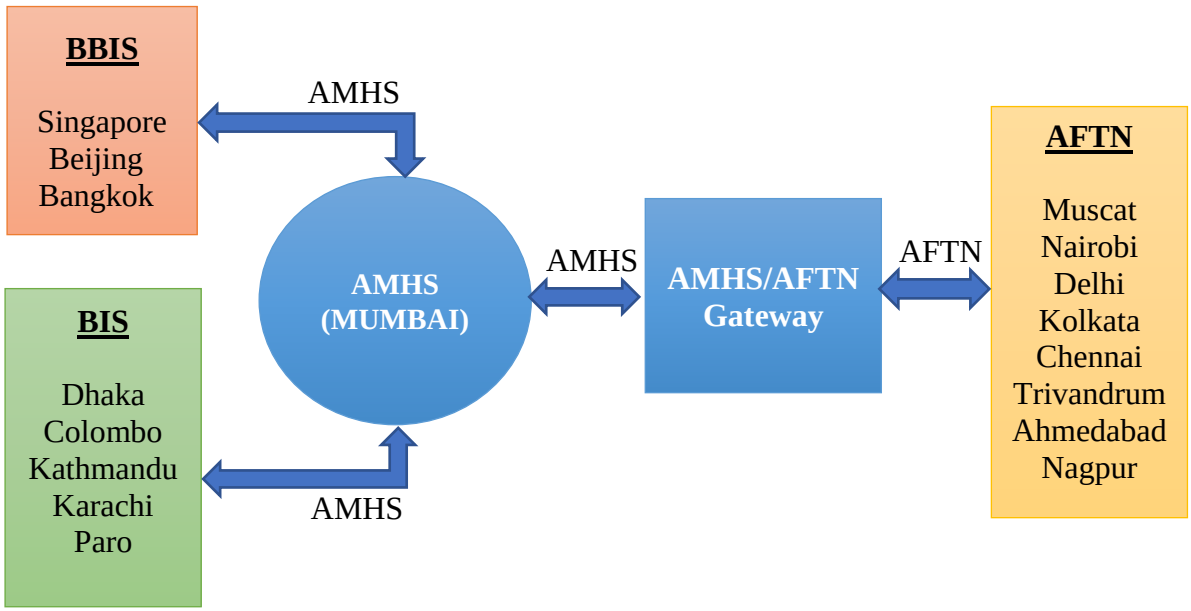
2.1.1 India implemented AMHS system at Mumbai (a BBIS station) in the year 2008. Mumbai is connected over AMHS with three BBIS stations, viz. Bangkok, Singapore and Beijing.

2.1.2 Mumbai is also connected over AMHS with BIS stations viz. Karachi, Dhaka, Kathmandu, Colombo and Paro.

2.1.3 An AMHS-AFTN gateway is installed at Mumbai along with the AMHS which serves India's legacy AFTN systems installed at New Delhi, Chennai, Kolkata and other locations to cater to the domestic requirements.

2.1.4 India presently connects with Muscat and Nairobi on AFTN and plans to migrate to AMHS as soon as the counterparts are ready.

2.1.5 Present Setup -



2.2 Plans for IACO SARPs compliant PAN INDIA AMHS

2.2.1 India plans to replace the present AMHS at Mumbai and also the legacy AFTN systems elsewhere in India with a PAN INDIA AMHS.

2.2.2 The new AMHS system is planned in a DC (Data Centre) and DR (Disaster Recovery) configuration to have a fail-safe operational redundancy achieved through geographical redundancy.

2.2.3 The planned AMHS shall have both Basic and Extended (FTBP, IHE, SEC,DIR) services.

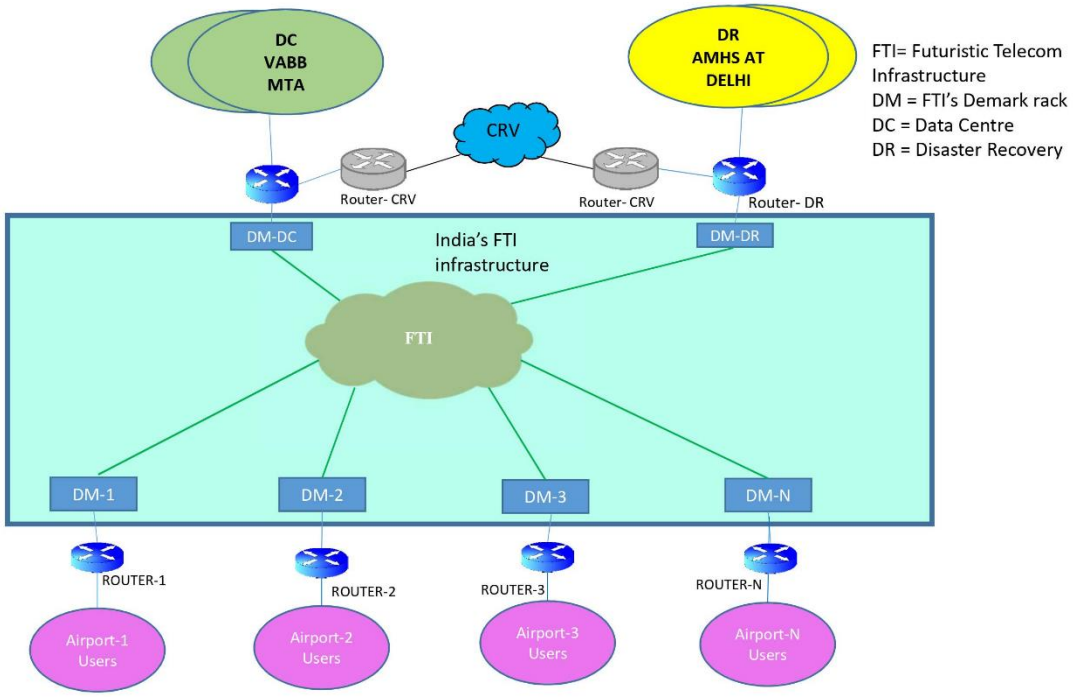
2.2.3.1 The new system shall support IWXXM/AIXM/FXXM traffic as per ICAO's SARPS requirement.

2.2.4 Along with the AMHS, it is also planned to implement a Centralized Dynamic Database system supporting storage and retrieval of ATS messages, MET messages, NOTAM messages in addition to the Indian specific requirements.

2.2.5 India has established a robust in country TELCO network (FTI) with high availability to support the PAN INDIA AMHS. India also plans to implement CRV shortly.

2.2.6 The new AMHS system was planned to be put in operation in parallel with the operationalization of FTI and CRV. However, Procurement of the new AMHS system was delayed due to the outbreak of COVID-19. The new system is presently in tendering stage and expected to be implemented by Q1/Q2 of 2023.

2.2.7 The planned architecture of PAN INDIA AMHS



Planned AMHS implementation using India's FTI

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) Note the information contained in this paper and

b) Discuss any relevant matter as appropriate.

– – – – – – – – – – – – –