



*International Civil Aviation Organization*

**ICAO**

**The Second Meeting of the South Asia, Indian Ocean and Southeast Asia ATM Coordination Group (SAIOSEACG/3)**

Bangkok, Thailand, 16 – 19 April 2024

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#### **Agenda Item 4: Implementation of CNS-ATM Systems**

### **IMPLEMENTATION OF 5NM SURVEILLANCE-BASED SEPARATION IN ATS AIRSPACE OF INDIA**

(Presented by INDIA/AIRPORTS AUTHORITY OF INDIA)

#### **SUMMARY**

This paper presents implementation of 5NM surveillance based separation in whole of ATS Airspace of India for efficiency and capacity building.

## **1. INTRODUCTION**

1.1 Surveillance network plays a very important role in reduction of separation and capacity building while promoting safety and efficiency of aircraft operation across the ATS airspace. The growth of air traffic in the ATS airspace of India has reached almost pre-covid level and continuously growing. The domestic airlines have planned to introduce more aircraft in their fleet giving rise to demand for capacity building and improved efficiency of operation. India has reduced the en-route surveillance separation from 10NM to 5NM in the whole of ATS airspace as a step towards this.

## **2. DISCUSSION**

2.1 India has implemented 5NM surveillance based separation in ATS airspace of India from 1<sup>st</sup> January 2024 across the ATS airspace of India.

2.2 Before the 1<sup>st</sup> January 2024, the surveillance based horizontal separation in India were as follows.

- a) 5 NM up to 60 NM from radar head.
- b) 5 NM within 60 NM of ADS-B ground station when only ADS-B is used in non-radar environment.
- c) 10NM beyond 60 NM from radar head
- d) 10 NM beyond 60 NM of ADS-B ground station when only ADS-B is used in non-radar environment
- e) 3 NM within specific distance from radar head upto FL140 where specifically authorized.

2.3 India has a surveillance network of 27 MSSR, 18 PSR, 35 ADS-B and Oceanic airspace has Space Based ADS-B sensors. Most of the RADARs are Mode-S RADARs. All the Area Control Centers and major airports have ATM Automation System capable of integration of surveillance sensors with Multi Sensor Tracking, advanced safety nets such as STCA, APW, MTCD, MSAW etc., Flight Data Processing, AIDC and decision making tools amongst other features.

2.4 Taking into account the improvement as stated above the surveillance separation based on RADAR and/or ADS\_B and/or MLAT in whole ATS airspace of India has been made 5NM in both terminal and en-route airspace and 3NM within terminal airspace, where specifically authorised, from 1<sup>st</sup> January 2024 after conducting the safety assessment and consent of the Regulator.

2.5 Bringing this uniformity of surveillance separation is not only in alignment with Doc 4444 separation standard but will bring efficiency in aircraft movement by reducing the need for climb and descend due to traffic conflict and build capacity while maintaining the safety.

### **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 matters as appropriate.

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