



**12th Meeting of Arabian Sea-Indian Ocean ATS Coordination Group ASIOACG/12) & 8th Meeting
of Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE/8)
New Delhi, India, 20 - 21 September 2017**

AGENDA ITEM 3: ATM ISSUES

AIRSPACE MANAGEMENT INITIATIVES BY INDIA

(Presented by Airports Authority of India)

SUMMARY

This paper presents the recent initiatives taken by India in enroute airspace.

Relevant Strategic Objectives:

- A. Safety – Enhance global civil aviation safety
- B. Air Navigation Capacity and Efficiency – Increase the capacity and improve the efficiency of the global aviation system
- C. Environmental Protection and Sustainable Development of Air Transport – Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment.

1. INTRODUCTION

1.1 India has been registering consistent growth in aviation in the past five years and all the industry projections indicate sustained growth in the coming years. Many industrial projections indicate India becoming the third largest aviation market by the year 2022. To meet the demands of the aviation growth in the domestic market India has taken notable initiatives. This paper presents the initiatives undertaken by India in supporting Civil Aviation.

2. DISCUSSION

2.1 By Government of India

2.1.1 National Civil Aviation Policy

The “National Civil Aviation Policy (NCAP)” was issued by Government of India in 2016. The vision of NCAP 2016 is “To create an eco-system to make flying affordable for the masses and to enable 30 crore domestic ticketing by 2022 and 50 crore by 2027, and international ticketing to increase to 20 crore by 2027. Similarly, cargo volumes should increase to 10 million tonnes by 2027.”

2.1.2 Regional Connectivity Scheme

The Regional Connectivity Scheme UDAN is a key component of the National Civil Aviation Policy (NCAP). UDAN was launched by the Government in October, 2016 with the prime objective

to facilitate / stimulate regional air connectivity by making it affordable for the masses. Through RCS the government plans to promote Regional Connectivity to Unserved/ Under Served Airports by providing Viability Gap Funding (VGF), subsidies and exclusivity. In the first phase a total of 29 unserved / underserved airports are being operationalized.

2.1.2 Flexible Use of Airspace

In 2013 Government of India approved implementation of Flexible Use of Airspace and constituted the National High Level Airspace Policy Body (NHLAPB) to implement FUA. In August, 2014 NHLAPB issued the Manual on FUA. FUA in India is progressing in a robust manner through meetings, joint design workshops, training etc. Notable achievements of FUA include establishment of 15 Conditional Routes (CDR) through Military Airspace reducing the route lengths to over 850 NM. The demand from IATA for an ATS Route between RASKI & Ahmedabad was concurred by Military as a CDR 2 for which India has submitted the PfA to BANP to ICAO-APAC in March, 2017.

2.2 From ANSP

2.2.1 PBN

India implemented RNAV 5 (2012), RNAV 2 (2015) & RNP 2 (2016) city pair routes providing optimal flight paths and enhanced airspace capacity.

2.2.2 Airspace

Upper Area harmonization (UAH) has been implemented in Chennai & Kolkata FIR. UAH of Delhi FIR is in process and almost all the CNS infrastructure is ready. A Lower Area Control at Jaipur has already been established and another at Amritsar is under process. UAH of Mumbai FIR is under design phase. AIDC has been implemented between Kuala Lumpur and Chennai ATCC.

2.2.3 Infrastructure

State of the art automation systems for ATC units are already installed at all major ATCCs and Airports. India has installed 43 Radars and 21 ADS-B ground stations for surveillance. IP based VHF are also installed. Networking of Surveillance & VHF to ATCCs for redundant & reliable coverage to ATC units is under implementation.

2.2.4 ATFM

ATFM is being implemented in a phased manner and the first phase Flow Management Positions at six major airports was operationalized in April, 2017 and 30 more airports will be added in the second phase. Considering CDM as a key enabler in implementing ATFM a web portal access compatible with all the web browsers is available to the stakeholders to have a common situational awareness of the current ATFM status in India.

2.2.5 Safety

India hosted the first African Region (AFI)-Asia/Pacific Region (APAC)-Middle East Region (MID) Air Traffic Management (ATM) Special Coordination Meeting (AAMA/SCM) and Bi-lateral meetings with Srilanka, Malaysia & India to address Safety, coordination and airspace efficiency issues. India also attended the Second AAMA/SCM meeting at Cairo wherein sideline meetings were held with Oman & Yemen primarily to address the LHDs at Mumbai / Muscat & Mumbai / Sanaa FIR boundary.

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.
