



**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

TRIAL OPERATION OF DELHI AIRSPACE MANAGEMENT CELL (AMC)

(Presented by Airports Authority of India)

SUMMARY

This paper presents a brief overview of the Flexible Use of Airspace (FUA) trial operation of the Delhi Airspace Management Cell (Delhi AMC) which was conducted from 27 February to 10 March 2017. The trial operation was conducted live, with the AMC conducting pre-tactical airspace allocation of temporary airspace structures such as TSA, TRA and CDR. The paper discusses the lessons learnt from the exercise and the future plans for establishing AMCs on permanent basis.

1. INTRODUCTION

1.1 Under Flexible Use of Airspace (FUA) concept, Airspace Management Cells (AMC) are joint civil/military airspace management (ASM) focal-points which have the authority to conduct pre-tactical and tactical ASM within the framework of the State's airspace structures, priority rules and negotiation procedures as laid down by the National High Level Airspace Policy Body (NHLAPB). India will establish four Regional AMCs (RAMC) and one National AMC (NAMC) to manage pre-tactical and tactical ASM.

1.2 RAMCs will be established at the four major Air Traffic Services (ATS) centres at Chennai, Delhi, Kolkata and Mumbai. The RAMCs will work under the supervision of the NAMC which will be collocated with the Central Command Centre (CCC) of the Air Traffic Flow Management (ATFM) System. RAMCs will work in tandem with Flow Management Position (FMP) of ATFM established at the four ATS Centres.

1.3 AMCs will be vested with the responsibility of pre-tactical allocation of Temporary Segregated Area (TSA), Temporary Reserved Area (TRA) and Conditional Routes (CDR). Each RAMC will be responsible for allocation of the Flexible Use of Airspace (FUA) structures within the corresponding Flight Information Region (FIR). AMC will, in near term, also manage tactical allocation of adhoc airspaces through Dynamic Airspace Management (DAM).

1.4 It was decided that, prior to establishing NAMC and RAMCs on permanent basis, a trial operation of the NAMC and one RAMC need to be conducted for a limited period to check the efficacy of the processes involved and to identify issues which need priority action before commencing operation of AMCs on permanent basis.

2. DISCUSSION

Trial Operation of Delhi Airspace Management Cell

2.1 Trial operation of Delhi AMC was conducted from 27 February to 10 March 2017 at the Central Command Centre (CCC) of the Air Traffic Flow Management (ATFM) located in the New ATS Complex, Indira Gandhi International (IGI) Airport, New Delhi.

2.2 In Delhi AMC, the roles and responsibilities of Regional AMC and National AMC were combined.

2.3 During the trial operation, Delhi AMC functioned from 0800 to 1900 HRS IST (0230 to 1330 UTC) from Monday to Friday except on holidays. The morning shift worked from 0730 to 1330 IST and afternoon shift from 1300 to 1930 IST.

2.4 Representatives of Indian Air Force (IAF), Indian Navy, Airports Authority of India (AAI), Airline Operators and Airport Operators participated in the trials. AAI team consisted of officers from ASM and ATFM streams.

2.5 Prior to commencement of trial operations, a Standard Operating Procedure (SOP) was prepared and accepted by all participating agencies. The SOP contained detailed procedures for day-to-day coordination between military & civil ATC units and Delhi AMC, pre-tactical allocation of TSA, TRA and CDR and promulgation of allocation details through Airspace Use Plans (AUP) and Updated Airspace Use Plans (AUP).

2.6 Pre-tactical allocation for holidays and weekends were conducted on the last working day prior to the closure of the AMC, and AUPs pertaining to these days were issued on the last working day.

2.7 Delhi AMC also attempted a limited number of adhoc airspace allocation for military, in which the military applied to the AMC for allocation of airspace boxes at random, with reduced notification time than the normal requirement of 7 days.

2.8 Review of the trial operation was conducted on a weekly basis and also on completion of the trial operation. A joint report was prepared after completion of the trial operation.

2.9 The live trials highlighted some important issues which need to be addressed before AMCs can be established on permanent basis. The pre-requisites include:

- a) Reliable and fast communication facilities between the Military ATC Units and AMCs
- b) Adequate number of qualified and trained military & civil ATC personnel to man the AMCs
- c) Faster mechanism for dissemination of Airspace Use Plans (AUP) and Updated Airspace Use Plans (AUP)
- d) Letters of Agreement (LoA) between military and civil authorities on pre-tactical and tactical airspace management by AMCs

2.10 Efforts are underway to establish at least one RAMC along with the NAMC on permanent basis before 31 December 2017.

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.