



ASSEMBLY — 40TH SESSION

TECHNICAL COMMISSION

Agenda Item 30: Other issues to be considered by the Technical Commission

IMPLEMENTATION OF CROSS BORDER AIR TRAFFIC FLOW MANAGEMENT

(Presented by India)

EXECUTIVE SUMMARY

This information paper presents a brief review of progress of central air traffic flow management (C-ATFM) in India. Doc 9750, *Global Air Navigation Plan (GANP)* notes NOPS-B0/1 to B0/5 as the aviation system block upgrade (ASBU) elements applicable to air traffic flow management (ATFM) implementation. ICAO Asia Pacific Region has identified ATFM as a priority element for implementation in APAC Region. India has made rapid progress in implementation of ATFM in line with global and regional guidelines.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objectives – Air Navigation Capacity and Efficiency.
<i>Financial implications:</i>	NIL
<i>References:</i>	Doc 9971, <i>Manual on Collaborative Air Traffic Flow Management</i> Doc 9750, <i>Global Air Navigation Plan</i> APAC Seamless ATM Plan v5.0

1. INTRODUCTION

1.1 Airports Authority of India (AAI), is the air navigation service provider (ANSP) in India. In line with the Asia Pacific Seamless Air Traffic Management (ATM) Plan recommendations and taking note of ASBU B0 elements, viz., NOPS B0/1 to B0/5, is implementing C-ATFM system in a phased manner covering entire Indian airspace.

1.2 The updated GANP, through the ASBU elements, viz., NOPS B0/1 to B0/5, recognises distinct and essential characteristics of ATFM systems. The ASBU modules also note the dependent implementation of allied systems such as airport collaborative decision-making (A-CDM) and integration of these with ATFM systems to provide network operational planning.

1.3 ATFM implementation in APAC Region has been progressing steadily. Mideast States have begun the process of planning for ATFM implementation in Mideast Region. However, while good progress is being made towards standardised methodology and a partial regional network at least, the maturity of the ATFM systems and the level and capability of reliable participation by all concerned States is not at a point to address long term airspace constraints.

1.4 A renewed focus on establishment of ATFM systems, procedures and infrastructure at all States of the APAC and Mideast Region will substantially improve the coordination and implementation of air traffic flow during any planned or unplanned large scale air space disruptions.

2. DISCUSSION

2.1 ATFM is essential for managing and operating safe and efficient airspace. It helps regulate air traffic to avoid exceeding airport or airspace capacity while ensuring that available capacity is used efficiently. ATFM as one of the efficient ways to improve the capability of ATM environment.

2.2 The development of ATFM in India has focused primarily on the domestic ATFM. However, recognizing the need for providing equitable access to all airspace users and achieving a seamless transition between cross-border and domestic ATFM, India has expanded the scope of ATFM. India is actively engaged with adjacent States in Asia Pacific and Mideast Region to harmoniously develop compatible procedures for facilitating a CDM process and ATFM across the States.

2.3 For successful implementation of ATFM capabilities and CDM processes across the States in the Region, sharing information among stakeholders is primary. There is an active need in promoting situational awareness through timely communication, collaboration, and coordination of operational data and information to ANSPs, airspace users and other stakeholders.

2.4 As has been demonstrated by efficient ATFM programs, while planned or regular constraining events provide a sound basis for demand/capacity balancing (DCB) processes with good lead time and stable ATFM measures, determination of dynamic capacity due to events such as weather phenomena or rapidly changing downstream flow restrictions have proven to be very difficult to predict with the required certainty. Additionally, the APAC and Mideast region are also facing large airspace restrictions leading to a non-harmonious flow of air traffic.

2.5 It has been noted that absence of clear structures for effective coordination with adjacent States often results in non-effective responses to emerging air space contingencies.

2.6 The GANP, in NOPS B1/5, notes the essential need for full integration of airspace management (ASM) with ATFM. It will ensure a continuous, seamless and iterative airspace planning and management/allocation based on airspace requests at any time period within strategic, pre-tactical and tactical ASM levels.

2.7 The establishment of a unique command structure for strategic airspace and air traffic flow coordination across States is becoming critically essential. India has implemented ATFM system capable of assisting in strategic and tactical large scale air space management restrictions. ATFM centres at the other States, once established, can take up the roles for strategic and tactical coordinated airspace measures for a smoother transition of air traffic flow during the times of large scale airspace disruptions. ICAO regions should prioritise the ATFM implementation in a harmonious way across the regions.

2.8 The Asia and Pacific (APAC) Directors General of Civil Aviation (DGCA) Conference has urged States to actively to collaborate, harmonize, support and participate in the development and implementation of cross-border ATFM and A-CDM in the Region. India having implemented a nationwide ATFM is supporting the harmonization efforts across both APAC and Mideast Regions, thus truly leading towards an inter-regional ATFM.

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