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Agenda Item 6: Future direction
6.1: Implementation plans and methodologies

SEAMLESS ATM ACROSS REGIONS THROUGH COLLABORATIVE PROCESS - INDIA'S STRATEGY

(Presented by India)

EXECUTIVE SUMMARY

This paper presents India's strategy on achieving seamless air traffic management (ATM) across diverse air navigation service environments beyond the Asia/Pacific Region by implementing ATM measures like traffic flow management (TFM) in a collaborative manner with a wider trans-regional perspective.

Action: The Conference is invited to consider the recommendation in paragraph 3.

1. INTRODUCTION

1.1 Due to its unique location in the Asia/Pacific (APAC) Region, India is entrusted with the responsibility of catering to major air traffic flows from Europe/Middle East Asia/Africa to South East and East Asia. Its airspace, the ninth largest in the world, has common flight information region (FIR) boundaries with fourteen other States.

1.2 India has undertaken various augmentation programmes such as performance-based navigation (PBN), flexible use of airspace, upper airspace harmonization, use of data link and more effective air traffic control (ATC) procedures to significantly enhance safety, efficiency and effective delivery of air traffic management (ATM) services in the Indian airspace. With the implementation of the satellite-based augmentation system (SBAS) in the form of GPS and geostationary earth orbit augmented navigation (GAGAN), with a large footprint from West Africa to East Australia, the Indian sub-continental airspace will be equipped to fully support satellite-based navigation.

1.3 India's contribution has been acknowledged in the implementation of regional seamless ATM measures including the aviation system block upgrade (ASBU) Block 0 modules in the APAC Region in the recently concluded twenty-third meeting of the Asia/Pacific Air Navigation Planning and Implementation Group (APANPIRG/23). India is aggressively pursuing further the harmonization and developmental process towards implementing Block 1 modules ahead of the schedule.

1.4 However, it is recognized that structural improvements in air navigation infrastructure and procedures across many States take time, and therefore the flow of air traffic across different States and regions encounter different standards of ATM services, leading to airspace and air traffic constraints. To achieve global harmonization, the strategic management of future airspace and ATM capacity across many regions will become equally important as managing the tactical demand of traffic flows, within a limited airspace. Bay of Bengal Cooperative Air Traffic Flow Management (BOBCAT) is a good example of collaboration effort across many States in the APAC Region in strategically managing airspace constraints.

1.5 India believes in collaboration and cooperation among adjacent States through informal coordination groups like the Bay of Bengal, Arabian Sea and Indian Ocean Coordination Group (BOBASIO) which will lead to greater harmonization in the flow of air traffic across the region. India has played a leading role in bringing together States from three ICAO regions in this platform. BOBASIO demonstrates a working mechanism which brings out the desired effects towards establishment of seamless ATM. India has also contributed in establishing an en route monitoring agency (EMA-BOBASMA) which has played an important role in the implementation of 50 NM reduced horizontal separation (RHS) in the sub-region.

1.6 India is one of the members of an ICAO constituted committee to draft a global air traffic flow management (ATFM) manual and contributed in the development of a draft ATFM manual. India recognizes that air traffic flow and capacity management has become a vital part of air traffic management to be considered in a wider perspective. The ATFM system will aid ATM services in exploiting the full capacity of the air transport system without running the risk of infringing upon safety caused by overload situations. India, therefore, is in the process of implementing a comprehensive air traffic flow management system to cater to regional and domestic requirements.

2. INDIA'S ATFM INITIATIVE TO SUPPORT SEAMLESS ATM

2.1 The central air traffic flow management (C-ATFM) system intends to integrate various stakeholders to programme various operational constraints strategically and tactically in such a way that the demand and capacity are optimally balanced through a collaborative decision making process. The C-ATFM system will be implemented in stages with a planned nationwide ATFM system covering most of the airports throughout India in the first phase.

2.2 The benefits of a seamless and harmonized ATM and ATFM system in Indian airspace with the development of compatible systems across flight information regions (FIRs) will contribute to efficient, safe and optimal flow of air traffic in this important corridor of airspace.

3. CONCLUSION

3.1 The Conference is invited to note that:

a) regional ATFM is one of the major requirements in realizing the goal of "One Sky and Seamless ATM";

b) India is developing the capability to support the establishment of regional ATFM; and

c) States and other stakeholders are invited to participate in establishing an intra/interregional ATFM system for greater global benefits and harmonization.

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