



*International Civil Aviation Organization*

**The Sixth Meeting of ICAO Asia/Pacific Air Traffic Flow Management  
Steering Group (ATFM/SG/5)**

Bangkok, Thailand, 06 – 10 June 2016

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**Agenda Item 4: Review of Current CDM/ATFM Operations and Problem Areas**

**PROGRESS OF C-ATFM IMPLEMENTATION IN INDIA**

(Presented by INDIA)

**SUMMARY**

This paper presents a brief update on the progress of C-ATFM implementation in India. It also describes the plan for implementation of phase I of C-ATFM operations and its further progress.

**1. INTRODUCTION**

1.1. Airport Authority of India (AAI) is in the process of implementing Central ATFM (C-ATFM) system covering entire Indian airspace.

1.2. The C-ATFM system integrates flight data from various subsystems, viz., ATC Automation system flight updates and AFTN flight messages. The system also displays weather information along with static information about airports, airspaces and air routes. The system processes the demand and capacity information and provides decision making tools to the ATFM flow manager for collaborative decision making and to ensure regulated flow of traffic and to maintain balance between capacity and demand.

1.3. The C-ATFM system network architecture consists of a Central Command and control Center (CCC) located at Delhi supported by Flow Management Positions (FMPs) located at various ACCs, APP centers and TWRs across the country.

1.4. Presently the CCC is established at Delhi. FMPs have been established at 21 major airports and further installation is in progress at other airports. It is planned to establish FMPs at 36 airports by the end of the year.

1.5. The CCC will be the nodal center for ATFM implementation in India and will be provided with strategic and tactical flight plan data, weather data, airport and airspace capacity data and other relevant environmental data necessary for monitoring demand and capacity across Indian airspace. The CCC will in turn communicate with FMPs for ATFM measures implementation as and when necessary.

## 2. DISCUSSION

### Phase I Implementation Plans

2.1. The C-ATFM baseline system, including the CCC and FMPs at six major metro airports has been established in 2015. The system is provided with external interfaces like AFTN, tactical flight updates from ATM automation systems, weather information etc.

2.2. AAI system experts have updated the ATFM database with airspace data, air routes, flight schedules, airport data and RPL files.

2.3. The system has undergone rigorous testing of all components such as demand, capacity predictions, flight updates, CDM scenario generation etc. The shortcomings, deficiencies are being addressed by the system integrator.

2.4. AAI plans to ‘soft-launch’ the ATFM system by conducting operational trials beginning with the commencement of winter schedule, i.e., from October 2016.

2.5. Some of the pre-requisite activities before the operational trials are training of ATFM personnel, providing access to ATFM system to stakeholders for system familiarization, developing a common set of business rules, publications of AICs etc. AAI ATFM directorate is working towards meeting the schedule.

2.6. The operation trials are planned to test the system readiness during the winter months when large scale weather effects are seen at airports in northern parts of India due to fog. ATFM planning will be immensely helpful in mitigating the adverse effects of capacity shortfalls. It will also be a great opportunity for testing

### Phase II Implementation Plans

2.7. Nationwide ATFM system covering all major airports throughout India will be made gradually operational during the summer schedule of 2017. The evolution of the system will complement the basic ATFM system from Phase 1.

2.8. AAI will follow the Safety Management process throughout the implementation process.

2.9. AAI plans to conduct a series of interactive meetings, seminars and briefing sessions with stakeholders across the country to familiarize the participants of the concept of C-ATFM operations before the commencement of operational trials.

2.10. The Indian C-ATFM system is future ready in terms of standard protocols for exchange of ATFM information, thus ensuring interoperability among various ATFM systems. As the cross border ATFM implementation progresses satisfactorily, India will be able participate as a mature partner in furthering the objectives of seamless skies.

## 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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