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Harmonization of Air Traffic Services (ATS) procedures with the provisions of Air Traffic Flow Management (ATFM) to enhance efficiency and effectiveness of Air Traffic Management (ATM)

Presented by- INDIA

Reference Documents



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➤ Global Documents:

- Procedures for Air Navigation Services, Air Traffic Management (PANS-ATM) DOC 4444
- Manual on Collaborative Air Traffic Flow management, Doc 9971

➤ State Documents:

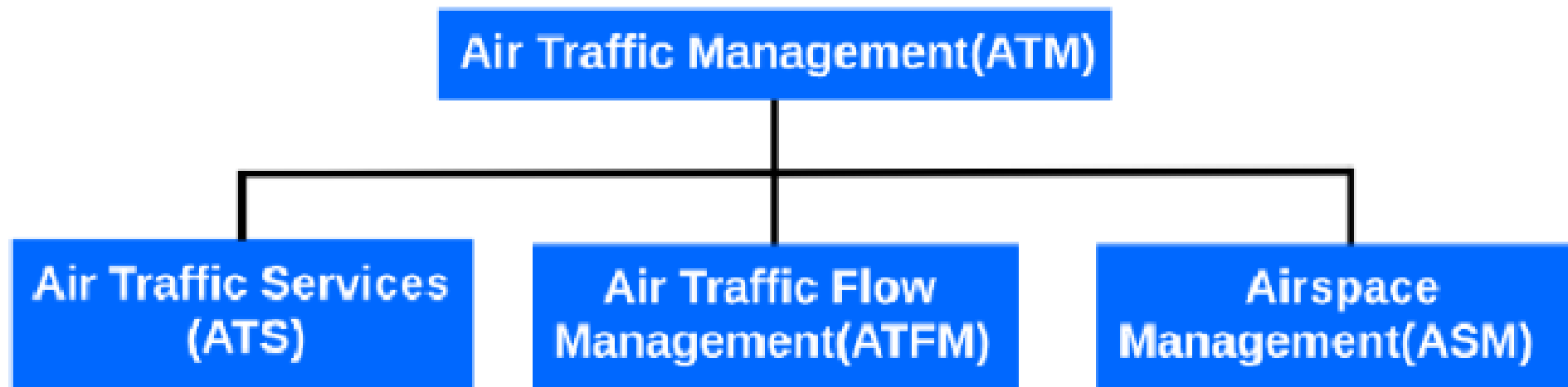
- **Manual of Air Traffic Services-Part 1** [MATS-Part 1]: Prepared by Airports Authority of India. Provides processes, procedures and instructions essential for provision of safe and efficient ATS within the airspace/ airports under jurisdiction of AAI.
- **Manual of Air Traffic Services-Part 2** [MATS-Part 2]: Prepared by every Indian ATS facility containing instructions valid for the concerned facility.
- **ATFM Operations handbook** : Prepared by AAI containing comprehensive information on ATFM procedures including duties and responsibilities of stakeholders.



Relationship: ATM, ATS, ATFM & ASM



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Harmonization of ATS procedure with ATFM provisions to enhance ATM efficiency and effectiveness



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- Reference is invited to ATFM/SG/14-SP01 ATFM Global Update –Summary
 - Work more on the Optimization of Airspace and ATM procedures
 - Take advantage of available ICAO procedures
- This paper discuss AAls plan to harmonize and update the following parts of its Manual of Air Traffic Services Part 1:
 - start up procedures with ATFM provisions as per provision contained in ICAO PANS ATM DOC 4444.
 - Adding ATFM related phraseologies contained in ICAC DOC 9971 (Manual on CATFM).
 - Strip marking procedures to include Flow measure information on controllers' strips.
- Such **harmonization will lead to efficient and effective air traffic management by:**
 - **helping controllers through reinforcing common situational awareness about applied ATFM flow measures.**
 - **providing readily available procedures.**
 - **Creating an enabling environment for the monitoring and ensuring of CTOT compliances through appropriate phraseologies.**



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- Air traffic in India has been growing at rapid pace, accordingly the requirement of ATFM measures are also increasing along with it.
- In the year 2023, total 348 ATFM measures were applied, whereas in the year 2024, total 757 ATFM measures were applied across India.
- AAI has identified that there is requirement of harmonizing the ATS procedures with ATFM related provisions, based on provisions contained in DOC 4444, DOC9971, ATFM operational hand book.
- **The increased successful application of such provisions through ATS procedures is expected to meet the evolving level of ATFM services by increased CTOT compliances, leading to efficient and effective air traffic management**



Discussion



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- **DOC 4444, Chapter 7, Procedures for Aerodrome Control Service, Start Time Procedures**
 - **Start-up time procedures should be implemented** where necessary to avoid congestion and excessive delays on the maneuvering area **or when warranted by ATFM regulations.**
 - **Start-up time procedures should be contained in local instructions, and should specify the criteria and conditions for determining when and how start-up times shall be calculated and issued to departing flights.**
 - **When an aircraft is subject to ATFM regulations, it should be advised to start up in accordance with its allocated slot time**
- **Doc 9971, Chapter 6, ATFM Communication, ATFM Phraseologies**

CIRCUMSTANCE	PHRASEOLOGY
Calculated take-off time (CTOT) delivery resulting from a slot allocation. <i>The CTOT shall be communicated to the pilot at the first contact with ATC.</i>	CTOT (time)
Change to CTOT resulting from a slot revision.	REVISED CTOT (time)
CTOT cancellation resulting from a slot cancellation.	CTOT CANCELLED, REPORT READY

Updated procedures in MATS-Part 1



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- *Start-up time procedures should be implemented where necessary to avoid congestion or when warranted by ATFM regulations. Start-up time procedures should be contained in local instructions/MATS Part 2, and should specify the criteria and conditions for determining when and how start-up times shall be calculated and issued to departing flights.*
- ***When an aircraft is subject to ATFM regulations, it should be advised to start up in accordance with its allocated slot time. ATC should develop and implement local procedures to facilitate and ensure adherence to calculated take off time [CTOT] at an airport of departure. These procedure should normally include:***
 - *The CTOT shall be communicated to the pilot at the first contact with ATC. The CTOT adherence window is defined as –5 to +10 minutes of the CTOT time.*
 - *CTOT, if applicable, be included as part of the ATC pre-departure clearance/ start-up clearance.*
 - *Aircraft should be advised to start up in accordance with its allocated slot time.*
 - *ATC shall provide all possible assistance to Aircraft operators [AOs] to meet CTOT or to coordinate for a revised CTOT.*
 - *ATC may deny start up clearance to a flight unable to meet its CTOT until coordination with the ATFM units concerned has been effected.*



Updated procedures in MATS-Part 1



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- *In case of a flight departing to a constrained airport during the period when flow measures are in force, ATC shall ensure that no flights depart without a CTOT. If a flight is not issued a CTOT, in all probability such a flight is missed in the CDM scenario because of late filing of the flight plan. ATC/Airlines will coordinate with central command centre for a CTOT as per procedure.*
- *As far as practicable, preference should be accorded to aircraft subject to ATFM measures to ensure compliance of CTOT/CTO.*
- **Phraseologies** contained in Para 6.5.4 Table II-6-4 of ICAO DOC 9971 will be added in MATS Part 1.
- **Strip marking procedures** contained in the chapter 12 appendix- A will be suitably updated by including the provision 2.16 mentioned below:
 - *Any ATFM regulation requirement such as calculated take off time (CTOT)/ Calculate time over (CTO) etc. should be appropriately written on the ATM flight progress strip. Electronic flight strips, when available should be suitably highlighted.*



Action by the Meeting



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- The meeting is invited to:
 - Note the information.
 - Discuss any relevant matters as appropriate.
 - Other states may consider including similar provisions in respective ATS documents.
 - ATFM-SG may consider recommending inclusion of phraseologies of Doc 9971 at a suitable place in PANS-ATM DOC 4444.





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*Thank
You*

