



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

Air Traffic Flow Management implementation in India





Phased Implementation Process



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Phase I

- Training of ATFM Specialists, FMPs & Stakeholders
- Safety assessment
- Publication of draft CBR & promulgation of AIP
- 3 Mock trials
- Activation of 36 FMPs
- Implementation of Phase –I , GDP & GSt Program

Phase II

- Airspace Flow programs supporting Airspace Congestion & DCB at most airports across the Country
- Interconnectivity among ATFM –ACDM system
- Availability of WEB Portal for all stakeholders
URL: atfmaai.aero/portal



- Pre-Flight
 - Rerouting
 - **Ground Delay Program(GDP)**
 - **Ground Stop Program (GSt)**
 - Minutes in Trail



- In-Flight
 - Rerouting
 - **Miles/Minutes in Trail**
 - Fix Balancing
 - Airborne Holding
 - Level capping
 - **Arrival Sequencing**





Phase - I ATFM measures



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- Departures from Constrained Airport regulated through Airport CDM
- ATFM Regulations to arrivals to the constrained airport
- Calculated Take Off Time (CTOT) issued to departures from Indian airports
- Compliance window for CTOT is -5' to +10'





Beginning Phase II



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Minutes in Trail Program

- Tactical Flow program expressed as the number of minutes between successive aircraft applied at Navaid /Fix
- Issues Ground Delay for inactive flights and Air Delay to active flights
- Information exchanged : Calculated Take off time (CTOT)/Calculated Time Over(CTO)*/Calculated Landing time(CLDT)
- Dissemination : Direct Access through SKYFLOW/E- mail/Web Portal
- Compliance measurement: Comparing Actual time over against calculated time over

** minutes between successive aircraft at a Fix/ Navaid as required and based on SKYFLOW algorithm*





Beginning Phase II



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Arrival Sequencing Program

- Focused on Sequencing Arrivals by issuing extent of Air Delay
- Information exchanged : Calculated Landing time (CLDT)*
- Dissemination : Direct Access through SKYFLOW/E- mail/Web Portal
- Compliance measurement: Comparing Actual Landing time with Calculated landing time

**appropriately sequenced Estimated landing times based on inter arrival spacing, Capacity and SKYFLOW algorithm*



Challenges Envisaged



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- Correct and timely update of Flight intent by Airlines
- What should be the CTO Compliance window?
- Should we have different CTOT compliance window for Airport/Airspace Programs?
- How do we inform our stakeholders of the same?





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*Thank
You*

