



ATC19 — AMAN/DMAN Integration

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Integrated Arrival and Departure management aims at increasing airport and TMA throughput, resilience and predictability by improved co-ordination between En-Route/Approach, local ATC and airports.

DMAN provides optimum departure sequence based on information provided by airport operator, airlines and ATC.

Similarly, AMAN calculates the optimum arrival flow to the airport. Integration of runway sequence, respecting AMAN and DMAN constraints, allows for optimum utilisation of runway.

Where this integration interferes with the 180 nautical miles (or shorter distance as indicated in Implementation Objective ATC15.2 – Arrival Management Extended to En-route Airspace Family 1.1.1) requirement for extended AMAN, the system has to be tuned to allow as large horizon as possible.

System requirements:

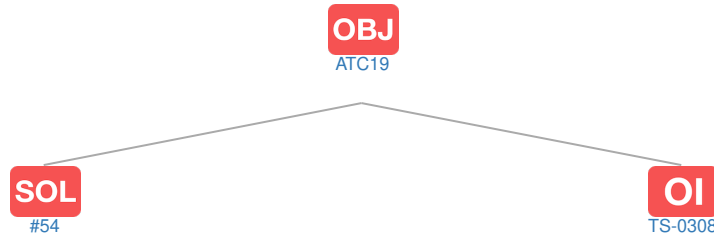
- Integration of departure and arrival flows are done by integrating existing AMAN and DMAN functions where runways are operated in mixed mode.
- AMAN and DMAN systems shall be able to share data to be included in their planning algorithms calculating arrival and departure flows.
- The integration of AMAN and DMAN must be based on the optimised pre-departure sequence and interfaces with airport CDM systems.
- Controller Working Position (CWP) needs to support the display of AMAN/DMAN overlapping sequences.

NOTE FOR MILITARY AUTHORITIES: It is the responsibility of each military authority to review this Objective IN ITS ENTIRETY and address each of the SLoAs that the military authority considers RELEVANT for itself. This has to be done on top and above of the review of "MIL" SLoAs which identify actions EXCLUSIVE to military authorities.

Edition	2022
Stakeholders	Air Navigation Service Provider / Airport Operator
Type	CP1
Scope	Airport
Status	Active

Context

Related Elements



Applicability Area(s) and Timescales

Applicability Area 1:	See list of airports in MP Level 3 Implementation Plan - Annexes
Applicability Area 2:	See list of airports in MP Level 3 Implementation Plan - Annexes

Timescales	From	By	Applicable to
Initial Operational Capability	01-01-2021	-	Applicability Area 1 + Applicability Area 2
Full Operational Capability / Target Date	-	31-12-2027	Applicability Area 1 + Applicability Area 2

Links to ATM Master Plan Level 2

OI Operational Improvement Steps

Code	Title	IOC	FOC	Related Elements
TS-0308	Flow based Integration of Arrival and Departure Management	31-12-2021	31-12-2025	SOL EN OBJ DS ICAO A

SOL Links to SESAR Solutions

Code	Title	Program	Related Elements
#54	Flow based Integration of Arrival and Departure Management	SESAR1	OI OBJ DS EOC ICAO

PCP Links to PCP ATM Sub-Functionalities

Code	Title	Related Elements
No record found		

ICAO ICAO Block Modules: No associated data

References

Applicable legislation

Regulation (EU) 2021/116 on the establishment of the Common Project One

Applicable ICAO Annexes and other references

None

Deployment Programme 2022

Family 1.2.1 - AMAN/DMAN Integration

Operating Environments

Airport

Terminal Airspace

Expected Performance Benefits

Safety	-
Capacity	-
Operational efficiency	Contribution to Predictability; increase in resilience.
Cost efficiency	-
Environment	The coupling of AMAN with DMAN has been shown to save departure fuel and improve local air quality due to a reduction in the taxi-out time during peak traffic (up to 7% savings in taxi-out fuel)
Security	-

Stakeholder Lines of Action

Code	Title	From	By	Related Enablers
ASP01	Couple AMAN and DMAN systems	01-01-2021	31-12-2027	
ASP02	Establish Bilateral Agreements	01-01-2021	31-12-2027	
ASP03	Upgrade CWP to incorporate the information from integrated AMAN/DMAN	01-01-2021	31-12-2027	
ASP04	Safety assessment	01-01-2021	31-12-2027	
ASP05	Training	01-01-2021	31-12-2027	
ASP06	Operational use	01-01-2021	31-12-2027	
APO01	Upgrade system to incorporate AMAN/DMAN information	01-01-2021	31-12-2027	
APO02	Establish Bilateral Agreements	01-01-2021	31-12-2027	
APO03	Safety assessment	01-01-2021	31-12-2027	
APO04	Training	01-01-2021	31-12-2027	
APO05	Operational use	01-01-2021	31-12-2027	

Supporting Material

Title	Related SLoAs
SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 https://www.sesardeploymentmanager.eu/publications/deployment-programme	APO01, APO02, APO03, APO04, ASP01, ASP02, ASP03, ASP04, ASP05

Consultation & Approval

Working Arrangement in charge	Airport Operations Team (AOT)
Outline description approved in	-
Latest objective review at expert level	-
Commitment Decision Body	Provisional Council (PC)
Objective approved/endorsed in	05/2019
Latest change to objective approved/endorsed in	-