

SESAR		Active							APT	
ATC07.1		AMAN Tools and Procedures								
REG	ASP	MIL	APO	USE	INT	IND	NM	MET	AIS	USP

Subject matter and scope

Implement basic arrival manager (AMAN) tools to improve sequencing and metering of arrival aircraft in selected TMAs and airports.

The AMAN tools interact with several systems, including the host flight data processing system (FDPS) and surveillance data processing system (SDPS) resulting in a 'planned' time for any individual flight.

Since the AMAN has certain conditions it needs to satisfy (such as the required landing rate, or spacing, on the runway), when 2 or more aircraft are predicted at or around the same time on the runway it plans a sequence, generating new 'required' times that need to be applied to the flight(s), in order to create/maintain the sequence.

AMAN also outputs the required time for the ATCO in the form of 'Time To Lose (TTL)/Time To Gain (TTG)' information. The controller is then responsible for finding and applying an appropriate method (vectoring, path stretching, speed changes or holding) for the aircraft to meet its time or position in the sequence.

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.

Applicability Area(s) & Timescale(s)

Applicability Area 1 (PCP airports) (TMAs serving the listed airports)	See list of airports in MP Level 3 Implementation Plan - Annexes		
Applicability Area 2 (Non-PCP airports) (TMAs serving the listed airports)	See list of airports in MP Level 3 Implementation Plan - Annexes		
Timescales:	From:	By:	Applicable to:
Initial operational capability	01/01/2007		Applicability Area 1 (PCP airports) + Applicability Area 2 (Non-PCP airports)
Full operational capability		31/12/2019	Applicability Area 1 (PCP airports) + Applicability Area 2 (Non-PCP airports)

References

European ATM Master Plan

OI step -	[TS-0102]-Basic Arrival Management Supporting TMA Improvements (incl. CDA, P-RNAV)									
Enablers -	ER APP ATC 128	PRO-049	PRO-050							
Legend:	WXYZ-001	Covered by SLoA(s) in this objective	WXYZ-002 zzz	Covered by SLoA(s) in another objective	WXYZ-003	Not covered in the Implementation Plan				

Applicable legislation

-none-

Essential Operational Changes

- none -

SESAR Solution

- none -

ICAO GANP - ASBUs

B0-RSEQ	Improved Runway Traffic Flow through Sequencing (AMAN/DMAN)
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Deployment Programme

1.1.1	Arrival Management extended to en-route airspace
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European Plan for Aviation Safety

- none -	
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Operating Environments

Terminal Airspace

Stakeholder Lines of Action (SLoAs)

SLoA ref.	Title	From	By
ATC07.1-ASP01	Implement initial basic arrival management tools	01/01/2007	31/12/2019
ATC07.1-ASP02	Implement initial basic AMAN procedures	01/01/2007	31/12/2019
ATC07.1-ASP03	Adapt TMA organisation to accommodate use of basic AMAN	01/01/2007	31/12/2019
ATC07.1-ASP04	Adapt ground ATC systems to support basic AMAN functions	01/01/2007	31/12/2019

Description of finalised and deleted SLoAs is available on the eATM Portal @ https://www.eatmportal.eu/working/depl/essip_objectives

Expected Performance Benefits

Safety:	Maintain or improved.
Capacity:	Improved airport/TMA capacity and reduced delays.
Operational Efficiency:	Optimised arrival sequencing produces a positive effect on fuel burn.
Cost Efficiency:	-
Environment:	Reduced holding and low level vectoring has a positive environmental effect in terms of noise and CO2 emissions.
Security:	-

Detailed SLoA Descriptions

ATC07.1-ASP01	Implement initial basic arrival management tools	From: 01/01/2007	By: 31/12/2019
Action by:	ANS Providers		
Description & purpose:	Implement initial basic arrival management tools		
Supporting material(s):	EUROCONTROL - Arrival Manager - Implementation Guidelines and Lessons Learned Edition 0.1 12/2010 EUROCONTROL - Operational Requirements for EATCHIP Phase III ATM Added functions - Volume 3: Arrival Manager, Functional Specifications for Arrival Manager - Edition 2.0 / 01/1999		
Finalisation criteria:	1 - Function has been implemented, documented and is in operational use.		
ATC07.1-ASP02	Implement initial basic AMAN procedures	From: 01/01/2007	By: 31/12/2019
Action by:	ANS Providers		
Description & purpose:	Define, validate and implement ATC procedures for operational use of basic AMAN tools.		
Supporting material(s):	EUROCONTROL - Arrival Manager - Implementation Guidelines and Lessons Learned Edition 0.1 12/2010 EUROCONTROL - Operational Requirements for EATCHIP Phase III ATM Added functions - Volume 3: Arrival Manager, Functional Specifications for Arrival Manager - Edition 2.0 / 01/1999		
ATM Master Plan relationship:	[PRO-049]-ATC Procedures to make use of AMAN tool including assigning responsibility for issuing times [PRO-050]-ATC Procedures to increase the use of CDA during busier time periods using AMAN information		
Finalisation criteria:	1 - Procedures have been implemented, documented and are in operational use.		
ATC07.1-ASP03	Adapt TMA organisation to accommodate use of basic AMAN	From: 01/01/2007	By: 31/12/2019
Action by:	ANS Providers		
Description & purpose:	Adapt TMA organisation, where necessary, to accommodate the use of basic AMAN.		
Supporting material(s):	EUROCONTROL - Arrival Manager - Implementation Guidelines and Lessons Learned Edition 0.1 12/2010 EUROCONTROL - Operational Requirements for EATCHIP Phase III ATM Added functions - Volume 3: Arrival Manager, Functional Specifications for Arrival Manager - Edition 2.0 / 01/1999		
Finalisation criteria:	1 - TMA organisation is already compliant to basic AMAN use, or has been adapted accordingly.		
ATC07.1-ASP04	Adapt ground ATC systems to support basic AMAN functions	From: 01/01/2007	By: 31/12/2019
Action by:	ANS Providers		
Description & purpose:	Prepare and adapt ground ATC systems to support and implement basic AMAN functions.		

ATC07.1	AMAN Tools and Procedures
Supporting material(s):	EUROCONTROL - Arrival Manager - Implementation Guidelines and Lessons Learned Edition 0.1 12/2010 EUROCONTROL - Operational Requirements for EATCHIP Phase III ATM Added functions - Volume 3: Arrival Manager, Functional Specifications for Arrival Manager - Edition 2.0 / 01/1999
ATM Master Plan relationship:	[ER APP ATC 128]-Introduce Basic AMAN
Finalisation criteria:	1 - ATC systems are already compliant to basic AMAN use, or have been adapted accordingly.

