

SESAAR		Active							ECAC+	
AOM19.4		Management of Pre-defined Airspace Configurations								
REG	ASP	MIL	APO	USE	INT	IND	NM	MET	AIS	USP

Subject matter and scope

This objective encompasses the implementation of an improved ASM solutions process, the management of pre-defined airspace configurations and the process and supporting tools for an improved ASM performance analysis.

The ASM solutions process is aimed at delivering ASM options (e.g. pre-defined airspace scenarios) that can help alleviate capacity problems identified in any particular area of European airspace as well as improve flight efficiency assessing impact on capacity and ensuring synchronised availability of optimized airspace structures based on traffic demand.

Pre-defined airspace configurations are based on coordinated and validated combinations of airspace structures (e.g. conditional routes (CDRs), direct routing (DCTs), airspace reservation (ARES), such as variable profile areas/dynamic mobile areas (VPA/DMA) or other types as single ARES or combined in pre-defined airspace scenarios identified within the ASM solutions processes) and ATC dynamic sectorisation, to meet airspace needs in terms of capacity and/or flight efficiency. These pre-defined airspace configurations could be applicable both in free route (FRA) and in Fix route network environments.

Airspace configurations and ATC flexible sectors configuration are already used when the flows and constraints can be predicted well in advance (e.g. weekend routes or seasonal flows of traffic). A more efficient pre-defined airspace configuration management requires supporting functionalities and procedures and well defined collaborative decision making processes at pre-tactical level involving the AMCs, NM, ATFCM, ATC and airspace users. This objective aims at implementing the functionalities, procedures and processes supporting the management of pre-defined airspace configurations.

The ASM performance analysis process to be implemented should assess the flight efficiency gains resulting from the rolling ASM/ATFCM process implementation. The capacity aspects need also to be addressed.

NOTE that there is no OI Step covering the implementation of pre-defined airspace configurations so a Change Request has been raised for the Master Plan Level 2 to address this gap.

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	All ECAC States except: Armenia, Georgia, Luxembourg, Malta, Moldova, North Macedonia. Plus: Israel		
Timescales:	From:	By:	Applicable to:
Initial operational capability	01/01/2018		Applicability Area
Full operational capability		31/12/2021	Applicability Area

References

European ATM Master Plan

Legend:	WXYZ-001	Covered by SLoA(s) in this objective	WXYZ-002 zzz	Covered by SLoA(s) in another objective Objective covering the enabler	WXYZ-003	Not covered in the Implementation Plan
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Applicable legislation

- Regulation (EC) No 2150/2005 of 23 December 2005 on Implementation and Application of the Flexible Use of Airspace
- Regulation (EU) No 716/2014 on the establishment of the Pilot Common Project

Essential Operational Changes

- none -

SESAAR Solution

#31 - Variable profile military reserved areas and enhanced (further automated) civil-military collaboration

ICAO GANP - ASBUs

B1-FRTO	Improved Operations through Optimized ATS Routing
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B1-NOPS	Enhanced Flow Performance through Network Operational Planning
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Deployment Programme

- none -	
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European Plan for Aviation Safety

- none -	
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Operating Environments

En-Route
Network
Terminal Airspace

Stakeholder Lines of Action (SLoAs)

SLoA ref.	Title	From	By
AOM19.4-ASP01	Adapt ATM systems to support the management of ASM solutions and pre-defined airspace configurations.	01/01/2018	31/12/2021
AOM19.4-ASP02	Implement procedures in support of an improved ASM solution process and pre-defined airspace configurations	01/01/2018	31/12/2021
AOM19.4-NM01	Adapt NM systems to support the management of pre-defined airspace configurations	01/01/2018	31/12/2021
AOM19.4-NM02	Implement procedures in support of an improved ASM solution process and the management of pre-defined airspace configurations	01/01/2018	31/12/2021
AOM19.4-NM03	Implement tools in support of ASM performance analysis	01/01/2018	31/12/2021

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

Expected Performance Benefits

Safety:	-
Capacity:	Increased through better utilisation of airspace resources within and across airspace boundaries leading to reduction of flight delays.
Operational Efficiency:	Increased through the availability of more optimum routes/trajectories allowing lower fuel burn.
Cost Efficiency:	-
Environment:	-
Security:	-

Detailed SLoA Descriptions

AOM19.4-ASP01	Adapt ATM systems to support the management of ASM solutions and pre-defined airspace configurations.	From: 01/01/2018	By: 31/12/2021
Action by:	ANS Providers		
Description & purpose:	Adapt ATM systems including: - system changes for ASM solutions - system changes for predefined airspace configurations; - sharing of the ASM solutions, pre-defined airspace configuration inputs and outputs via B2B services.		
Supporting material(s):	EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - SPEC 112 - EUROCONTROL Specifications for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 - OJ 2009/C 196/05 / 01/2009 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua		
ATM Master Plan relationship:	[ER APP ATC 15]-Flight Data Processing: support Dynamic Sectorisation and Dynamic Constraint Management.		
Finalisation criteria:	1 - ATM systems have been adapted		
AOM19.4-ASP02	Implement procedures in support of an improved ASM solution process and pre-defined airspace configurations	From: 01/01/2018	By: 31/12/2021

AOM19.4	Management of Pre-defined Airspace Configurations		
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Action by:	ANS Providers		
Description & purpose:	Implement procedures including: - An ASM solution process; - Process changes for predefined airspace configurations.		
Supporting material(s):	EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - SPEC 112 - EUROCONTROL Specifications for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 - OJ 2009/C 196/05 / 01/2009 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua		
Finalisation criteria:	1 - Procedures have been implemented		
AOM19.4-NM01	Adapt NM systems to support the management of pre-defined airspace configurations	From: 01/01/2018	By: 31/12/2021
Action by:	NM		
Description & purpose:	Adapt NM systems including: - system changes for ASM solutions; - system changes for predefined airspace configurations; - sharing of the ASM solutions, pre-defined airspace configuration inputs and outputs via B2B services.		
Supporting material(s):	EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - SPEC 112 - EUROCONTROL Specifications for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 - OJ 2009/C 196/05 / 01/2009 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua		
Finalisation criteria:	1 - NM systems have been adapted		
AOM19.4-NM02	Implement procedures in support of an improved ASM solution process and the management of pre-defined airspace configurations	From: 01/01/2018	By: 31/12/2021
Action by:	NM		
Description & purpose:	Implement procedures including: - An improved ASM solution process; - Process changes for predefined airspace configurations including both in a free and fixed route environment.		
Supporting material(s):	EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - SPEC 112 - EUROCONTROL Specifications for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 - OJ 2009/C 196/05 / 01/2009 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua		
Finalisation criteria:	1 - ASM Handbook has been updated 2 - Procedures have been implemented		
AOM19.4-NM03	Implement tools in support of ASM performance analysis	From: 01/01/2018	By: 31/12/2021
Action by:	NM		
Description & purpose:	Implement tools and processes in support of ASM performance analysis in order to assess the flight efficiency gains resulting from the rolling ASM/ATFCM process implementation.		
Supporting material(s):	EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - SPEC 112 - EUROCONTROL Specifications for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 - OJ 2009/C 196/05 / 01/2009 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua		
Finalisation criteria:	1 - ASM performance analysis is being performed and shared with concerned stakeholders.		

