

CP1		Active							ECAC+	
INF10.3		Aeronautical Information Exchange - Airspace structure service								
REG	ASP	MIL	APO	USE	INT	IND	NM	MET	AIS	USP

## Subject matter and scope

SWIM comprises standards, infrastructure and governance enabling the management of information and its exchange between operational stakeholders via interoperable services.

This implementation objective is addressing one of the services in support of Airspace Management and Advanced Flexible Use of Airspace

- ASM Level 1 is the strategic level of FUA, with the involvement of relevant civil and military stakeholders. ASM Level 1 establishes airspace structures and defines their conditions of use, it includes exchange of long-term airspace planning e.g. major exercises and events. The management of airspace structures are applied during pre-tactical and tactical phases
- ASM Level 2 deals with the pre-tactical reservation of the airspace structures. The following services support the ASM level 2:
  - Airspace Structure Service - Management of the AUP/UUP by the local ASM support systems requires that the same airspace data is used by both NM and the ASM support systems. The airspace data is available via NM B2B Airspace Structure Service, which allows to obtain in AIXM 5.1 all the airspace data needed by the local ASM support systems for the management of the AUP (AIRAC data and the live updates)
  - Airspace Availability Service - part of the NM B2B Services, allows the local ASM support systems to provide the AUP and its dynamic updates (UUP) to NM in a timely manner; it also allows NM to share the local AUPs/UUPs with all stakeholders involved in the ASM Level 2. It also allows also the publication of the consolidated European AUP/UUP (EAUP/EUUP) to all stakeholders, AUs, for use in the flight planning systems
  - Airspace Reservation (ARES) information: this service allows the exchange of information regarding ARES between local ASM support systems, in particular to support cross-border operations
- ASM Level 3 deals with the tactical activation and deactivation of the airspace structures. The following services support the ASM level 3:
  - Notification of the activation of an Airspace Reservation/Restriction (ARES)
  - Notification of the de-activation of an Airspace Reservation/Restriction (ARES)
  - Pre-notification of the activation of an Airspace Reservation/Restriction (ARES)
  - Notification of the release of an Airspace Reservation/Restriction (ARES)
  - Query Airspace Reservation/Restriction (ARES) information

### System requirements

- Local ASM support systems shall exchange ARES information with relevant civil and military stakeholders at local and FAB level via SWIM Services
- Local ASM support systems shall provide the AUP/UUP information to NM via the NM B2B Airspace Availability Service
- Local ASM support systems shall consume the airspace information required for interoperability with NM via the NM B2B Airspace Structure Service
- The AU systems shall use the EAUP/EUUP published by NM via the NM B2B Airspace Availability Service
- The NM system shall make the NM B2B Airspace Availability Service SWIM compliant
- The NM system shall make the NM B2B Airspace Structure Service SWIM compliant
- ATC systems shall consume the information related to real-time activation and deactivation of ARES provided by the local ASM support systems

The current implementation objective is addressing the Airspace structure service.

**NOTE:** For a full description of the services as well as of the associated system requirements, see the Family 5, in the SESAR Deployment Programme edition 2022, Approved by the European Commission.

**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		All EU SES States			
Applicability Area 2					
Timescales:				From:	By:
Initial Operational Capability				01/01/2021	Applicability Area 1 + Applicability Area 2

INF10.3	Aeronautical Information Exchange - Airspace structure service
---------	--

Full Operational Capability / Target Date	31/12/2025	Applicability Area 1 + Applicability Area 2
---	------------	---

### References

#### European ATM Master Plan

OI step -	<a href="#">[IS-0901-A]-SWIM-TI Yellow Profile for Ground/Ground (G/G) information sharing</a>							
Enablers -	REG-0519	SWIM-GOV-05a	SWIM-INFR-05a	SWIM-NET-01a	SWIM-SUPT-01a	SWIM-SUPT-03a		
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	

#### Applicable legislation

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

#### Essential Operational Changes

ATM Interconnected Network
----------------------------

#### SESAR Solution

#46 - SWIM Yellow Profile
---------------------------

#### ICAO GANP - ASBUs

- none -
----------

#### Deployment Programme

5.3.1	Aeronautical Information Exchange
-------	-----------------------------------

#### European Plan for Aviation Safety

- none -
----------

#### Operating Environments

Airport
En-Route
Network
Terminal Airspace

### Stakeholder Lines of Action (SLoAs)

SLoA ref.	Title	From	By
INF10.3-ASP01	Adapt local system to use NM airspace structure	01/01/2021	31/12/2025
INF10.3-ASP02	Use NM airspace structure information in operation	01/01/2021	31/12/2025
INF10.3-NM01	Provide NM airspace structure in support of local ASM systems	01/01/2021	31/12/2025

Description of finalised and deleted SLoAs is available on the eATM Portal @ [https://www.eatmportal.eu/working/depl/essip\\_objectives](https://www.eatmportal.eu/working/depl/essip_objectives)

### Expected Performance Benefits

Safety:	-
Capacity:	-
Operational Efficiency:	-
Cost Efficiency:	-
Environment:	-
Security:	-

### Detailed SLoA Descriptions

INF10.3-ASP01	Adapt local system to use NM airspace structure	From:	By:
---------------	---	-------	-----

INF10.3		Aeronautical Information Exchange - Airspace structure service	
		<b>Applicability Area 1:</b> 01/01/2021	<b>Applicability Area 1:</b> 31/12/2025
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	The local ASM support system consumes airspace information needed for interoperability with NM via the NM B2B Airspace Structure Service in compliance with the "EUROCONTROL Specification for Airspace Management (ASM) Support System requirements supporting the ASM processes at local and FAB level" This SLoA supports the SLoAs AOM19.5-ASP01 "Deploy automated ASM support systems", AOM19.5-ASP05 "Implement interoperability of ASM support systems with NM system" and AOM19.5-ASP10 "Adapt ASM system to manage airspace data information aligned with centralised airspace data provided by NM system".		
	Note :This SLoA needs to be synchronised between civil and military ANSPs and NM.		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>Finalisation criteria:</b>	1 - The local ASM support system consumes the airspace structure provided by NM in the creation and management of the AUP/UUP.		
<b>INF10.3-ASP02</b>	<b>Use NM airspace structure information in operation</b>	<b>From:</b>	<b>By:</b>
		<b>Applicability Area 1:</b> 01/01/2021	<b>Applicability Area 1:</b> 31/12/2025
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	Final validation and preparation for operation  Note :This SLoA needs to be synchronised between civil and military ANSPs and NM.		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>Finalisation criteria:</b>	1 - The local ASM support system uses in operation the airspace structure provided by NM in the creation and management of the AUP/UUP		
<b>INF10.3-NM01</b>	<b>Provide NM airspace structure in support of local ASM systems</b>	<b>From:</b>	<b>By:</b>
		<b>Applicability Area 1:</b> 01/01/2021	<b>Applicability Area 1:</b> 31/12/2025
<b>Action by:</b>	<b>NM</b>		
<b>Description &amp; purpose:</b>	The NM system provides airspace structure information needed by the local ASM support systems for the AUP process; that information is provided via the NM B2B Airspace Structure Service, which is upgraded to be SWIM compliant This SLoA supports the SLoAs AOM19.5-NM04 "Provide a centralised airspace data information to support ASM process".		
	Note :This SLoA needs to be synchronised between civil and military ANSPs and NM.		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>Finalisation criteria:</b>	1 - The NM B2B Airspace Structure Service is SWIM compliant and available in the SWIM Registry as a SWIM compliant service		

