AOM19.2 — ASM Management of Real-Time Airspace Data

Implement enhanced Airspace Management (ASM) by automated exchange services of ASM data during the tactical phase continuously in real time. ASM information (real-time Airspace Reservation (ARES) status) is shared between ASM systems, civil and military ATS units/systems and needs to be communicated to NM in the tactical phase. The data shared with NM is mostly related to the early airspace release pertinent to the possibility that the released airspace could be plannable by IFPS. These data, consisting of pre-notification of activation, notification of activation, de-activation, modification and release of airspace are collected, saved and processed in order to be exchanged between ASM stakeholders and be made available to ATM actors; while some airspace users are not directly involved in ASM process, they will be notified by the Network Manager.

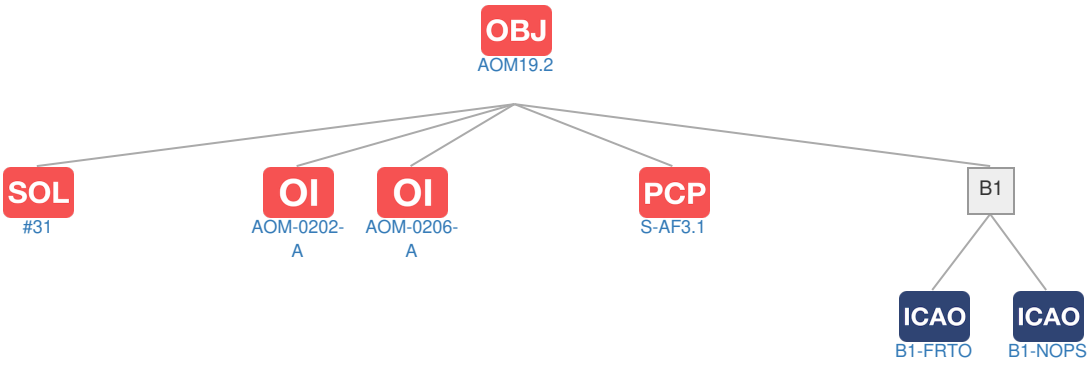
The scope of this objective encompasses:
- Procedural and system upgrades (ASM, ATM, NM and AU systems (Computer Flight Plan Software Providers (CFSP)) for exchange of real time airspace status data;
- Integration and management of ASM real-time data into ANSPs' ATM systems and into AUs' (CFSPs) flight planning systems;
- Full sharing of real-time airspace status updates in order to take early advantage of possible opportunities and/or to achieve real-time awareness of airspace situation;
- Network impact assessment of the changes resulting of the application of the above processes.

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 / Airspace Users / Network Manager
Type	PCP
Scope	ECAC+
Status	Removed

Context

Related Elements



Applicability Area(s) and Timescales

Applicability Area: All ECAC States except: Armenia, Azerbaijan, Luxembourg, Malta, Moldova, North Macedonia. Plus: Israel

Timescales	From	By	Applicable to
Initial operational capability	01-01-2017	-	Applicability Area
Full operational capability	-	01-01-2022	Applicability Area

Links to ATM Master Plan Level 2

OI Operational Improvment Steps

Code	Title	IOC	FOC	Related Elements
AOM-0202-A	Automated Support for strategic, pre-tactical and tactical Civil-Military Coordination in Airspace Management (ASM).	31-12-2020	31-12-2025	SOL OI EN OBJ DS PCP ICAO
AOM-0206-A	Flexible and modular ARES in accordance with the VPA design principle	31-12-2020	01-10-2025	SOL OI EN OBJ DS PCP ICAO

SOL Links to SESAR Solutions

Code	Title	Program	Related Elements
#31	Variable profile military reserved areas and enhanced (further automated) civil-military collaboration	SESAR1	SOL OI OBJ DS EOC PCP ICAO

PCP Links to PCP ATM Sub-Functionalities

Code	Title	Related Elements
S-AF3.1	Airspace Management and Advanced Flexible Use of Airspace	SOL OI EN OBJ ICAO

ICAO ICAO Block Modules

Designator	Title	Related Elements
B1		
B1-FRTO	Improved Operations through Optimized ATS Routing	SOL OI OBJ PCP
B1-NOPS	Enhanced Flow Performance through Network Operational Planning	SOL OI OBJ PCP

References

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

Applicable ICAO Annexes and other references
None

Deployment Programme 2022
-

Operating Environments
Terminal Airspace
En-Route
Network

Expected Performance Benefits

Safety	Improved through better co-ordination of civil and military airspace needs at the European Network level. Potential gains through more efficient airspace allocation and better knowledge of traffic environment, common situational awareness, and some enhancement through reduction in controller workload.
Capacity	Increased through better utilization 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	Emissions reduced through the use of more optimum routes/trajectories.
Security	-

Stakeholder Lines of Action

Code	Title	From	By	Related Enablers
ASP01	Adapt ATM systems for real-time ASM data exchanges	01-01-2017	01-01-2022	EN
ASP02	Adapt local ASM support system for real-time ASM data exchanges with NM systems	01-01-2017	01-01-2022	EN
ASP03	Implement procedures related to real-time (tactical) ASM level III information exchange	01-01-2017	01-01-2022	EN
USE01	Adapt airspace users systems for real-time ASM data exchanges with NM	01-01-2017	01-01-2022	
NM01	Adapt NM systems for real-time ASM data exchanges	01-01-2017	01-01-2022	EN
NM02	Implement procedures related to real-time (tactical) ASM level III information exchange	01-01-2017	01-01-2022	EN

Supporting Material

Title	Related SLoAs
EUROCONTROL - Advanced FUA Concept - Edition 1.0 http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf	ASP01, ASP02, ASP03, NM01, NM02, USE01
EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3	ASP01, ASP02, ASP03, NM01, NM02, USE01
EUROCONTROL - LARA (Local and sub-Regional Airspace Management Support System) https://www.eurocontrol.int/software/local-and-sub-regional-airspace-management-support-system	ASP02
EUROCONTROL - NM B2B Airspace Services Reference Manual https://www.eurocontrol.int/service/network-manager-business-business-b2b-web-services	ASP02
EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf	ASP03, NM02, USE01
EUROCONTROL - SPEC 166 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part I - Baseline Requirements - Edition 1.0 / 09/2017 https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements	ASP01, ASP02, ASP03, NM01, NM02, USE01
EUROCONTROL - SPEC-112 - EUROCONTROL Specification for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 / 01/2009 https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua	ASP01, ASP02, ASP03, NM01, NM02, USE01
EUROCONTROL - SPEC-179 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part II ASM to ASM Systems Interface Requirements - 1.0 / 01/2020 https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements	ASP01, ASP02, ASP03, NM01, NM02, USE01
SJU - SESAR Solution 31: Data Pack for variable profile military reserved areas and enhanced civil-military collaboration https://www.sesarju.eu/sesar-solutions/variable-profile-military-reserved-areas-and-enhanced-civil-military-collaboration	ASP01, ASP02, ASP03, NM01, NM02, USE01

Consultation & Approval

Working Arrangement in charge	NETOPS
Outline description approved in	-
Latest objective review at expert level	05/2016
Commitment Decision Body	Provisional Council (PC)
Objective approved/endorsed in	09/2016
Latest change to objective approved/endorsed in	-