

|         |     |   |     |     |     |     |    |     |       |     |
|---------|-----|---|-----|-----|-----|-----|----|-----|-------|-----|
| CP1     |     | Active  |     |     |     |     |    |     | ECAC+ |     |
| INF10.5 |     | Aeronautical Information Exchange - Airspace Reservation (ARES) |     |     |     |     |    |     |       |     |
| 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 Reservation (ARES) 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)

|                                    |                   |
|------------------------------------|-------------------|
| <b>Applicability Area 1</b><br>( ) | All EU SES States |
| <b>Applicability Area 2</b>        | United Kingdom    |

|                |  |
|----------------|--|
| <b>INF10.5</b> | <b>Aeronautical Information Exchange - Airspace Reservation (ARES)</b> |
|----------------|--|

|   |              |            |   |
|---|--------------|------------|---|
| <b>Timescales:</b>                        | <b>From:</b> | <b>By:</b> | <b>Applicable to:</b>                       |
| Initial Operational Capability            | 01/01/2021   |            | Applicability Area 1 + Applicability Area 2 |
| Full Operational Capability / Target Date |              | 31/12/2025 | Applicability Area 1 + Applicability Area 2 |

### References

#### European ATM Master Plan

|            |  |                                      |                 |   |               |               |  |
|------------|--|--------------------------------------|-----------------|---|---------------|---------------|--|
| Ol 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<br>zzz | Covered by SLoA(s) in another objective<br>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         |
|----------------------|--|------------|------------|
| <b>INF10.5-ASP01</b> | Adapt/ Implement ASM system to Provide ARES information to local civil/military stakeholders | 01/01/2021 | 31/12/2025 |
| <b>INF10.5-ASP02</b> | Publish ARES service in the Registry   | 01/01/2021 | 31/12/2025 |
| <b>INF10.5-ASP03</b> | Consume ARES information   | 01/01/2021 | 31/12/2025 |
| <b>INF10.5-ASP04</b> | Operational use  | 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

|                                |   |
|--------------------------------|---|
| <b>Safety:</b>                 | - |
| <b>Capacity:</b>               | - |
| <b>Operational Efficiency:</b> | - |
| <b>Cost Efficiency:</b>        | - |
| <b>Environment:</b>            | - |

|                |  |
|----------------|--|
| <b>INF10.5</b> | <b>Aeronautical Information Exchange - Airspace Reservation (ARES)</b> |
|----------------|--|

Security: | -

### Detailed SLoA Descriptions

|                                   |  |   |   |
|-----------------------------------|--|---|---|
| <b>INF10.5-ASP01</b>              | <b>Adapt/ Implement ASM system to Provide ARES information to local civil/military stakeholders</b>  | From:<br><b>Applicability Area 1:</b><br>01/01/2021 | By:<br><b>Applicability Area 1:</b><br>31/12/2025 |
| <b>Action by:</b>                 | <b>ANS Providers</b>   |   |   |
| <b>Description &amp; purpose:</b> | The local ASM support system provides SWIM services for the exchange of ARES information at local and FAB level, with civil and military stakeholders, as required, in support of ASM level 2 and level 3 processes and procedures and in line with the "EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part II – ASM to ASM system interface requirements" This SLoA supports the SLoAs AOM19.5-ASP01 "Deploy automated ASM support systems", AOM19.5-ASP06 "Implement interoperability between ASM support systems to facilitate cross border operations" and AOM19.5-ASP09 "Adapt ASM and ATC systems for automatic ASM data exchanges". |   |   |
|                                   | <a href="#">Note :This SLoA needs to be synchronised between civil and military ANSPs and NM.</a>  |   |   |
| <b>Supporting material(s):</b>    | SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021<br>Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>   |   |   |
| <b>Finalisation criteria:</b>     | 1 - SWIM compliant services for the exchange of ARES information are provided by the ASM support system.   |   |   |
| <b>INF10.5-ASP02</b>              | <b>Publish ARES service in the Registry</b>  | From:<br><b>Applicability Area 1:</b><br>01/01/2021 | By:<br><b>Applicability Area 1:</b><br>31/12/2025 |
| <b>Action by:</b>                 | <b>ANS Providers</b>   |   |   |
| <b>Description &amp; purpose:</b> | A description of ARES information services is made available in the Registry.  |   |   |
|                                   | <a href="#">Note :This SLoA needs to be synchronised between civil and military ANSPs.</a>   |   |   |
| <b>Supporting material(s):</b>    | SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021<br>Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>   |   |   |
| <b>Finalisation criteria:</b>     | 1 - ARES information service is available in the SWIM Registry as an operational SWIM compliant service.   |   |   |
| <b>INF10.5-ASP03</b>              | <b>Consume ARES information</b>  | From:<br><b>Applicability Area 1:</b><br>01/01/2021 | By:<br><b>Applicability Area 1:</b><br>31/12/2025 |
| <b>Action by:</b>                 | <b>ANS Providers</b>   |   |   |
| <b>Description &amp; purpose:</b> | The local ATM system, when relevant, consumes the ARES information made available via SWIM services by ASM support systems; in particular the ATC systems consume the information concerning the real-time activation and deactivation of ARES.<br>This SLoA supports the SLoAs AOM19.5-ASP08 "Implement procedures related to ASM level 3 (tactical) information exchange" and AOM19.5-ASP09 "Adapt ASM and ATC systems for automatic ASM data exchanges"   |   |   |
| <b>Supporting material(s):</b>    | SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021<br>Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>   |   |   |
| <b>Finalisation criteria:</b>     | 1 - The ATM system consumes ARES information after technical capabilities are validated  |   |   |
| <b>INF10.5-ASP04</b>              | <b>Operational use</b>   | From:<br><b>Applicability Area 1:</b><br>01/01/2021 | By:<br><b>Applicability Area 1:</b><br>31/12/2025 |
| <b>Action by:</b>                 | <b>ANS Providers</b>   |   |   |
| <b>Description &amp; purpose:</b> | The system is used to support daily operations once the systems have been implemented, the procedures are in place, the capability assessment has been delivered, and the training has been completed.   |   |   |
| <b>Supporting material(s):</b>    | SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021<br>Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>   |   |   |
| <b>Finalisation criteria:</b>     | 1 - Information Exchanges are used for daily operations  |   |   |

