

CP1		Initial							EU	
ATC23		Initial Air-Ground Trajectory Information Sharing (Ground Domain)								
REG	ASP	MIL	APO	USE	INT	IND	NM	MET	AIS	USP

## Subject matter and scope

Trajectory information shall be enhanced by using air-ground trajectory exchange. The preliminary steps for the deployment of Initial Trajectory Information Sharing consists of the downlink of Extended Projected Profile (EPP) data from the aircraft and processing of this data by the ATC systems.

The ground systems will enable controllers to display the downlinked route on the Controller Working Position. It will be automatically cross-checked whether the downlinked route is consistent with what the expected trajectory on the ground. In case of inconsistency, controllers will receive a warning.

System requirements:

- Ground systems shall support ADS-C/ EPP application as part of ATS B2 services while keeping compatibility with Controller Pilot Data Link Communications (CPDLC) services as required by Commission Regulation (EC) No. 29/2009 (amended by IR 310/2015) including the provision of service to flights equipped only with ATN-B1.
- All ATS providers defined in section 6.3.1 of this document and related ATC systems shall be able to receive and process EPP trajectory information.
- The ATC systems shall enable controllers to display the route of the downlinked trajectory.
- The ATC systems shall provide a warning to controllers in case of a discrepancy between the downlinked trajectory and the expected route.

**NOTE:** Implementation of this Objective can only be done in conjunction with Objective ATC22, which is providing the corresponding aircraft functionalities.

**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> (All EU SES States)	All EU SES States		
<b>Applicability Area 2</b>			
<b>Timescales:</b>	<b>From:</b>	<b>By:</b>	<b>Applicable to:</b>
Initial Operational Capability	01/01/2024		Applicability Area 1
Full Operational Capability / Target Date		31/12/2027	Applicability Area 1

## References

### European ATM Master Plan

OI step -	<a href="#">[IS-0303-A]-Downlink of on-board 4D trajectory data to enhance ATM ground system performance: initial and time based implementation</a>								
Enablers -	A/C-33a COM13	A/C-37a ATC22	AGDLS-ATC- AC-1	AGDLS-ATC- AC-11a	AGDLS-ATC- AC-11c	CTE-C02c	ER APP ATC 100	ER APP ATC 119	
	ER APP ATC 149a	REG-0100	STD-004						

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

### Essential Operational Changes

Trajectory Based Operations

### SESAR Solution

## Implementation Plan Edition 2022

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#115 - Extended Projected Profile (EPP) availability on ground, PJ.18-06b1 - NM Profile Improvement using ADS-C

**ICAO GANP - ASBUs**

- none -
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**Deployment Programme**

6.1.2	Initial Air-Ground Trajectory Information Sharing (Ground Domain)
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**European Plan for Aviation Safety**

RMT.0682	Implementation of the regulatory needs of the SESAR common projects
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**Operating Environments**

Network
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**Stakeholder Lines of Action (SLoAs)**

SLoA ref.	Title	From	By
<b>ATC23-ASP01</b>	Description of common requirements for ADS-C/EPP Data integration into ANSP Systems	01/01/2024	31/12/2027
<b>ATC23-ASP02</b>	Complete ANSP System deployment	01/01/2024	31/12/2027
<b>ATC23-ASP03</b>	Safety Assessment	01/01/2024	31/12/2027
<b>ATC23-ASP04</b>	Training	01/01/2024	31/12/2027
<b>ATC23-ASP05</b>	Operational use	01/01/2024	31/12/2027

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>	Increased ground situational awareness.
<b>Capacity:</b>	-
<b>Operational Efficiency:</b>	-
<b>Cost Efficiency:</b>	-
<b>Environment:</b>	-
<b>Security:</b>	-

**Detailed SLoA Descriptions**

<b>ATC23-ASP01</b>	<b>Description of common requirements for ADS-C/EPP Data integration into ANSP Systems</b>	<b>From:</b> <b>Applicability Area 1:</b> 01/01/2024	<b>By:</b> <b>Applicability Area 1:</b> 31/12/2027
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	Ensure that ANSP Systems requirements for receiving, processing and displaying ADS-C/EPP data to provide warnings to the ATCO in case of discrepancies between the downlinked trajectory and the ground system trajectory are defined.		
<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>ATM Master Plan relationship:</b>	<a href="#">[ER APP ATC 100]-4D Trajectory Management by Synchronization of Air and Ground Trajectories through EPP</a> <a href="#">[ER APP ATC 119]-Air/Ground Datalink Communication/Protocols for i4D and Controlled Time of Arrival</a> <a href="#">[ER APP ATC 149a]-Air-Ground Datalink Exchange to Support i4D - Extended Projected Profile (EPP)</a>		
<b>Finalisation criteria:</b>	1 - Description of common requirements in terms of ADS-C/EPP data integration, ADS-C contract management as well as functional HMI requirements within the ANSP systems are defined.		
<b>ATC23-ASP02</b>	<b>Complete ANSP System deployment</b>	<b>From:</b> <b>Applicability Area 1:</b> 01/01/2024	<b>By:</b> <b>Applicability Area 1:</b> 31/12/2027
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	Ensure integration of ANSP Systems with ADS-C/EPP data processing and displaying.		
<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>		

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<b>ATM Master Plan relationship:</b>	<a href="#">[ER APP ATC 100]-4D Trajectory Management by Synchronization of Air and Ground Trajectories through EPP</a> <a href="#">[ER APP ATC 119]-Air/Ground Datalink Communication/Protocols for i4D and Controlled Time of Arrival</a> <a href="#">[ER APP ATC 149a]-Air-Ground Datalink Exchange to Support i4D - Extended Projected Profile (EPP)</a>		
<b>Finalisation criteria:</b>	1 - Common integration process confirming the integrity of the corresponding equipment has been completed		
<b>ATC23-ASP03</b>	<b>Safety Assessment</b>	<b>From:</b> <b>Applicability Area 1:</b> 01/01/2024	<b>By:</b> <b>Applicability Area 1:</b> 31/12/2027
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	Ensure a safety assessment is done and approved by the appropriate authority.		
<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 - Submission of a safety case to the competent authority before putting it into service.		
<b>ATC23-ASP04</b>	<b>Training</b>	<b>From:</b> <b>Applicability Area 1:</b> 01/01/2024	<b>By:</b> <b>Applicability Area 1:</b> 31/12/2027
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	Ensure familiarisation with the new system functionalities and training of operational personnel (includes obtaining NSA approval) is completed well in advance of the deployment date.		
<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 - Controllers have received appropriate training and any necessary approval (training and safety case) from the NSA is obtained.		
<b>ATC23-ASP05</b>	<b>Operational use</b>	<b>From:</b> <b>Applicability Area 1:</b> 01/01/2024	<b>By:</b> <b>Applicability Area 1:</b> 31/12/2027
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	Start of operational use no later than 31st December 2027.		
<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 - Ground systems supporting ADS-C/ EPP application including the data display and warnings to controllers as described in the requirements are put into operations.		

