ITY-SPI — Surveillance Performance and Interoperability

This SES-related implementation objective is derived from Regulation (EU) No 1207/2011 (as amended), laying down requirements on the systems contributing to the provision of surveillance data, their constituents and associated procedures in order to ensure the harmonisation of performance, the interoperability and the efficiency of these systems within the European air traffic management network (EATMN) and for the purpose of civil- military coordination (SPI-IR).

Regulation (EU) No 1207/2011 (as amended) applies to the surveillance chain (as defined in Article 3(6) of the Regulation) constituted of:
(a) airborne surveillance systems, their constituents and associated procedures;
(b) ground-based surveillance systems, their constituents and associated procedures;
(c) surveillance data processing systems, their constituents and associated procedures;
(d) ground-to-ground communications systems used for distribution of surveillance data, their constituents and associated procedures.

Regulation (EU) No 1207/2011 (as amended) applies to all flights operating as general air traffic in accordance with instrument flight rules within the airspace provided for in Article 1(3) of Regulation (EC) No 551/2004 with the exception of Articles 7(3) and 7(4) which apply to all flights operating as general air traffic. This Regulation applies to air traffic service providers which provide air traffic control services based on surveillance data, and to communication, navigation or surveillance service providers which operate systems laid down in paragraph 1 of the Regulation itself.

Regulation (EU) No 1207/2011 (as amended) should be read in conjunction with the existing locally published requirements that European States already have in force on the subject matter.

The timescales identified in the objective as well as the possible exemptions reflect the amendments published through the Commission Implementing Regulation (EU) No 2020/587 published in April 2020.

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	Regulator / Air Navigation Service Provider / Military / Airspace Users
Type	SES
Scope	EU+
Status	Removed

Context

Related Elements
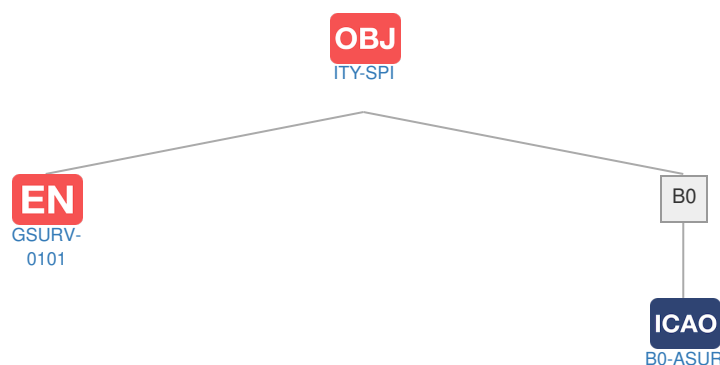
Applicability Area(s) and Timescales

Applicability Area: All ECAC States except: Türkiye. Plus: Israel, Morocco

Timescales	From	By	Applicable to
Entry into force of regulation	13-12-2011	-	Applicability Area
ATS unit operational capability	-	12-12-2013	Applicability Area
EHS and ADS-B Out in transport-type State aircraft	-	07-12-2020	Applicability Area
ELS in transport-type State aircraft	-	07-12-2020	Applicability Area
Retrofit aircraft capability	-	07-12-2020	Applicability Area
Ensure training of MIL personnel	-	07-12-2020	Applicability Area

Links to ATM Master Plan Level 2

EN Enablers

Code	Title	IOC	Related Elements
GSURV-0101	Surveillance Performance and Interoperability (SPI) Implementing Rule	22-11-2011	**EN** **OBJ**

SOL Links to SESAR Solutions

Code	Title	Program	Related Elements
No record found			

PCP Links to PCP ATM Sub-Functionalities

Code	Title	Related Elements
No record found		

ICAO ICAO Block Modules

Designator	Title	Related Elements
B0		
B0-ASUR	Improved access to Optimum Flight Levels through Climb/Descent Procedures using ADS-B	**OBJ**

References

Applicable legislation
Regulation (EC) No 1207/2011 of 22 November 2011 for the performance and the interoperability of surveillance (SPI-IR)
Regulation (EU) No 1034/2011 of 17 October 2011 on safety oversight in air traffic management and air navigation services
Applicable ICAO Annexes and other references
ICAO Annex 10 - Surveillance Radar and Collision Avoidance Systems
Deployment Programme 2022
-
Operating Environments
Airport
Terminal Airspace
En-Route
Network

Expected Performance Benefits

Safety	Improved safety through the deployment of surveillance solutions in non-radar areas.
Capacity	Capacity increase through the deployment of surveillance solutions in areas where currently procedural separation is applied.
Operational efficiency	The application of surveillance based separation instead of procedural separation will allow the airspace users to fly more efficient trajectories.
Cost efficiency	-
Environment	-
Security	-

Stakeholder Lines of Action

Code	Title	From	By	Related Enablers
REG01	Conduct safety oversight for the existing surveillance chain		05-02-2015	
ASP01	Ensure interoperability of surveillance data		12-12-2013	
ASP02	Conduct Safety Assessment for the existing surveillance chain		05-02-2015	
ASP03	Conduct Safety Assessment for changes introduced to the surveillance infrastructure		12-12-2013	
ASP04	Ensure the training of personnel		12-12-2013	
MIL01	Carriage and operation of Mode S Elementary Surveillance avionics		07-12-2020	
MIL02	Carriage and operation of Mode S Enhanced Surveillance and ADS-B Out avionics		07-12-2020	
MIL03	Ensure the training of personnel		07-12-2020	
USE01	Carriage and operation of Mode S Elementary Surveillance avionics by aircraft with an individual certificate of airworthiness first issued on or after 8 January 2015	DELETED		
USE02	Carriage and operation of ADS-B Out avionics by aircraft with an individual certificate of airworthiness first issued on or after 8 June 2016	DELETED		EN
USE03	Carriage and operation of Mode S Enhanced Surveillance avionics by aircraft with an individual certificate of airworthiness first issued on or after 8 June 2016	DELETED		
USE04	Carriage and operation of Mode S Elementary Surveillance avionics		07-12-2020	
USE05	Carriage and operation of ADS-B Out avionics		07-12-2020	
USE06	Carriage and operation of Mode S Enhanced Surveillance avionics		07-12-2020	
USE07	Ensure the training of personnel		07-12-2020	

Supporting Material

Title	Related SLoAs
EASA - CS ACNS - Certification Specifications for Airborne Communications Navigation and Surveillance - Issue 3 / 05/2021 https://www.easa.europa.eu/document-library/certification-specifications/cs-acns-issue-3	MIL02, USE04, USE05, USE06
EC - COMMISSION IMPLEMENTING REGULATION (EU) 2017/373 - (OJ L 62, 8.03.2017, p. 1) - COMMISSION IMPLEMENTING REGULATION (EU) 2017/373 of 1 March 2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, repealing Regulation (EC) No 482/2008, Implementing Regulations (EU) No 1034/2011, (EU) No 1035/2011 and (EU) 2016/1377 and amending Regulation (EU) No 677/2011 10/2011 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0373&from=EN	REG01
EC - COMMISSION IMPLEMENTING REGULATION (EU) 2017/373 - (OJ L 62, 8.03.2017, p. 1) - COMMISSION IMPLEMENTING REGULATION (EU) 2017/373 of 1 March 2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, repealing Regulation (EC) No 482/2008, Implementing Regulations (EU) No 1034/2011, (EU) No 1035/2011 and (EU) 2016/1377 and amending Regulation (EU) No 677/2011 03/2017 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0373&from=EN	ASP02, ASP03
EUROCAE - ED-102A - Minimum Operational Performance Specification for 1090 MHz Extended Squitter Automatic Dependant Surveillance - Broadcast (ADS-B) & Traffic Information Services - Broadcast (TIS-B) with Corrigendum 1 01/2012 https://eshop.eurocae.net/eurocae-documents-and-reports	MIL02, USE05
EUROCAE - ED-126 - Safety, Performance and Interoperability Requirements Document for ADS-B-NRA Application 12/2006 https://eshop.eurocae.net/eurocae-documents-and-reports	MIL02, USE05
EUROCAE - ED-161 - Safety, Performance and Interoperability Requirements Document for ADS-B-RAD Application 09/2009 https://eshop.eurocae.net/eurocae-documents-and-reports	MIL02, USE05
EUROCAE - ED-73F - Minimum Operational Performance Specification for Secondary Surveillance Radar Mode S Transponders 12/2020 https://eshop.eurocae.net/eurocae-documents-and-reports	MIL01, MIL02, USE04, USE05, USE06
EUROCONTROL - Air Navigation Systems Safety Assessment Methodology (SAM) - Version 2.1 / 11/2006 https://www.eurocontrol.int/tool/safety-assessment-methodology	ASP02, ASP03
EUROCONTROL - EAM 4 - ESARR 4 - Risk Assessment and Mitigation in ATM - Edition 1.0 / 04/2001 https://www.eurocontrol.int/publication/esarr-4-risk-assessment-and-mitigation-atm	ASP02, ASP03
EUROCONTROL - SPEC 147 - EUROCONTROL Specification for ATM Surveillance System Performance (ESASSP) - Volumes 1 and 2 - Edition 1.1 / 09/2015 https://www.eurocontrol.int/publication/eurocontrol-specification-atm-surveillance-system-performance-esassp	ASP01, ASP02, ASP03
EUROCONTROL - SPEC-149 - EUROCONTROL Specification for Surveillance Data Exchange - Part 1 All Purpose Structured EUROCONTROL Surveillance Information Exchange (ASTERIX) - Edition 2.4 / 10/2016 https://www.eurocontrol.int/asterix	ASP01
ICAO - Doc 9871 - Technical Provisions for Mode S Services and Extended Squitter - Advanced Edition / 04/2012 https://store.icao.int/	MIL01, MIL02, USE04, USE05, USE06

Source: European ATM Portal - **Report produced:** 26-04-2024 - **Date refresh:** 28-09-2023
EATMA data version: EATMA V12.1 - **ATM Master Plan data set version:** Dataset 19 Public - **MP L3 Edition:** MP L3 Plan 2022

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Consultation & Approval

Working Arrangement in charge	CNS / SUR SG
Outline description approved in	-
Latest objective review at expert level	05/2014
Commitment Decision Body	Provisional Council (PC)
Objective approved/endorsed in	07/2012
Latest change to objective approved/endorsed in	07/2014