



AOP04.1 — Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (former Level 1)

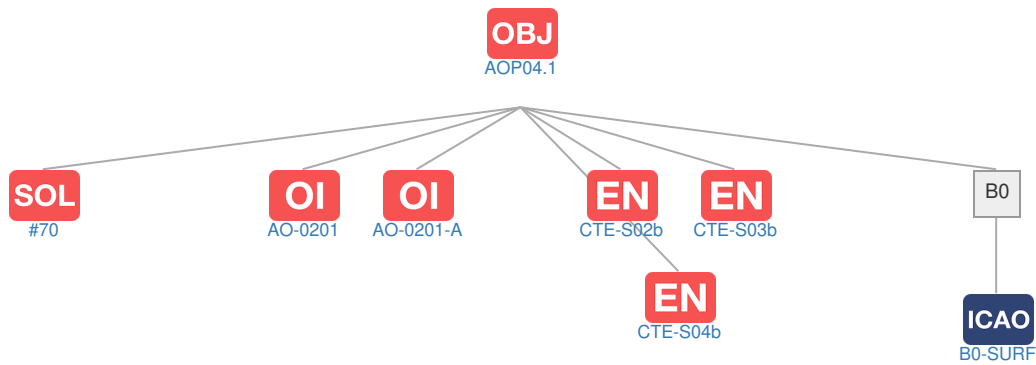
[Download Progress Report](#)

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	2019
Stakeholders	Regulator / Air Navigation Service Provider / Airport Operator / Airspace Users / International Organisations and Regional Bodies
Type	SESAR
Scope	Airport
Status	Active

Context

Related Elements



Applicability Area(s) and Timescales

Applicability-Area: See list of airports in MP Level 3 Implementation Plan - Annexes

Timescales	From	By	Applicable to
Initial operational capability	01-01-2007	-	Applicability-Area
Full operational capability	-	31-12-2011	Applicability-Area

Links to ATM Master Plan Level 2

OI Operational Improvement Steps

Code	Title	IOC	FOC	Related Elements
AO-0201	Ground Controller Situational Awareness in all Weather Conditions	31-12-2006	31-12-2010	OI EN OBJ ICAO
AO-0201-A	Enhanced Ground Controller Situational Awareness in all Weather Conditions with ADS-B	31-12-2020	31-12-2024	SOL OI EN OBJ DS ICAO

EN Enablers

Code	Title	IOC	Related Elements
CTE-S02b	Surface Movement Radar	31-12-2007	STK OI EN OBJ ⚙️
CTE-S03b	ADS-B station for RAD and APT surveillance	31-12-2020	STK OI EN OBJ DS ⚙️
CTE-S04b	Airport Multilateration (MLAT)	31-12-2007	STK OI EN OBJ DS ⚙️

SOL Links to SESAR Solutions

Code	Title	Program	Related Elements
#70	Enhanced Ground Controller Situation Awareness in all Weather Conditions	SESAR1	OI OBJ DS EOC ICAO

PCP Links to PCP ATM Sub-Functionalities

Code	Title	Related Elements
No record found		

ICAO ICAO Block Modules

Designator	Title	Related Elements
B0		
B0-SURF	Improved Runway Safety (A-SMGCS Level 1-2 and Cockpit Moving Map)	OI OBJ

References

Applicable legislation

Regulation (EU) No 716/2014 on the establishment of the Pilot Common Project

Applicable ICAO Annexes and other references

ICAO Annex 10 - Telecommunications

ICAO Annex 14 - Aerodromes

Deployment Programme 2019

-

Operating Environments

Airport

Expected Performance Benefits

Safety	Through improved situational awareness of the controller, especially during periods of reduced visibility and darkness.
Capacity	Traffic throughput notably increased in low visibility conditions.
Operational efficiency	More efficient control of surface traffic.
Cost efficiency	-
Environment	Reduction in fuel burn and emissions.
Security	-

Stakeholder Lines of Action

Code	Title	From	By	Related Enablers
REG01	Mandate the carriage of required aircraft equipment to enable location and identification of aircraft on the movement area (including military aircraft, as appropriate)	01-01-2007	31-12-2010	
REG02	Mandate the carriage of required vehicle equipment to enable location and identification of vehicles on the manoeuvring area	01-01-2007	31-12-2010	
REG03	Publish A-SMGCS Surveillance procedures (including transponder operating procedures) in national aeronautical information publications	01-01-2007	31-12-2010	
REG04	Approve A-SMGCS Surveillance implementations for operation	DELETED		
ASP01	Install required surveillance equipment	01-01-2007	31-12-2010	EN
ASP02	Train aerodrome control staff in the use of A-SMGCS Surveillance in the provision of aerodrome control service	01-01-2007	31-12-2010	
ASP03	Implement approved A-SMGCS operational procedures at airports equipped with A-SMGCS	01-01-2007	31-12-2011	EN
APO01	Install required surveillance equipment	01-01-2007	31-12-2010	EN
APO02	Equip Ground Vehicles	01-01-2007	31-12-2010	
APO03	Train ground vehicle drivers	01-01-2007	31-12-2010	
USE01	Update aircrew training manual to include procedures for use of correct Mode-S transponder setting for enabling cooperative A-SMGCS detection on the movement area	FINALISED		
INT01	Coordinate amendments to the related ICAO documentation to include A-SMGCS Level 1 procedures	FINALISED		

Supporting Material

Title	Related SLOAs
ETSI - EN 303 213-1 - Advanced Surface Movement Guidance and Control System (A-SMGCS); Part 1: A-SMGCS Level 1 including external interfaces; Community Specification for application under the Single European Sky Interoperability Regulation EC 552/2004 - Ver. 1.3.1 / 04/2012 http://webapp.etsi.org/workprogram/SimpleSearch/QueryForm.asp	APO01, ASP01, REG01, REG02, REG03
ETSI - EN 303 213-3 - Advanced Surface Movement Guidance and Control System (A-SMGCS); Part 3: Deployed cooperative sensor including its interfaces; Community Specification for application under the Single European Sky Interoperability Regulation EC 552/2004 - Ver. 1.1.1 - OJ 2010/C 330/02 / 10/2010 http://webapp.etsi.org/workprogram/SimpleSearch/QueryForm.asp	APO01, ASP01, REG01, REG02, REG03
ETSI - EN 303 213-4-1 - Advanced Surface Movement Guidance and Control System (A-SMGCS); Part 4: Deployed non-cooperative sensor including its interfaces; Sub-part 1: Generic requirements for non-cooperative sensor; Community Specification for application under the Single European Sky Interoperability Regulation EC 552/2004 - Ver. 1.1.1 - OJ 2010/C 330/02 / 10/2010 http://webapp.etsi.org/workprogram/SimpleSearch/QueryForm.asp	APO01, ASP01, REG01, REG02, REG03
ETSI - EN 303 213-4-2 - Advanced Surface Movement Guidance and Control System (A-SMGCS); Part 4: Deployed non-cooperative sensor including its interfaces; Sub-part 2: Specific requirements for a deployed Surface Movement Radar sensor; Community Specification for application under the Single European Sky Interoperability Regulation EC 552/2004 - Ver. 1.1.1 - OJ 2010/C 330/02 / 10/2010 http://webapp.etsi.org/workprogram/Report_WorkItem.asp?WKI_ID=37166	APO01, ASP01, REG01, REG02, REG03
EUROCAE - ED-116 - Minimum Operational Performance Specification for Surface Movement Radar Sensor Systems for Use in A-SMGCS 01/2004 http://boutique.eurocae.net/catalog/index.php	APO01, ASP01, REG01, REG02, REG03
EUROCAE - ED-117 - Minimum Operational Performance Specification for Mode S Multilateration Systems for Use in Advanced Surface Movement Guidance and Control Systems (A-SMGCS) 11/2003 https://eshop.eurocae.net/eurocae-documents-and-reports	APO01, ASP01, REG01, REG02, REG03
EUROCAE - ED-87C - Minimum Aviation System Performance Specification for Advanced Surface Movement Guidance and Control Systems (A-SMGCS) - Levels 1 and 2 - January 2015 01/2015 https://eshop.eurocae.net/eurocae-documents-and-reports	APO01, ASP01, REG01, REG02, REG03
EUROCONTROL - ATCO Rating Training - Training Plans: Aerodrome Training - Annex B: Detailed Training Plans - Edition 1.0 / 03/2004 https://trainingzone.eurocontrol.int	ASP02
EUROCONTROL - SPEC 171 - EUROCONTROL Specification for Advanced-Surface Movement Guidance and Control System (A-SMGCS) Services - Edition 1.0 / 03/2018 https://www.eurocontrol.int/publication/eurocontrol-specification-smgcs-services	APO01, APO02, APO03, ASP01, ASP02, ASP03, REG01, REG02, REG03
ICAO - Doc 9774 - Manual on Certification of Aerodromes - Edition 1 / 12/2001 https://store.icao.int/	REG02, REG03
ICAO - Doc 9830 - Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual - Edition 1 / 12/2004 http://www.icao.int/publications/Pages/catalogue.aspx	APO01, ASP01, REG01, REG02, REG03

Consultation & Approval

Working Arrangement in charge	Airport Operations Team (AOT)
Outline description approved in	-
Latest objective review at expert level	04/2012
Commitment Decision Body	Provisional Council (PC)
Objective approved/endorsed in	03/2003
Latest change to objective approved/endorsed in	07/2014