



# AOP04.2 — Advanced Surface Movement Guidance and Control System (A-SMGCS) Runway Monitoring and Conflict Alerting (RMCA) (Airport Safety Support Service = former ICAO Level 2)

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Runway Monitoring and Conflict Alerting (RMCA) (included in Airport Safety Support Service = former ICAO Level 2) is the first element of the A-SMGCS 'Airport Safety Support' service. Implementation Objective AOP12 covers the other elements of the Airport Safety Support service which are the Conflicting ATC clearances (CATC) and Conformance Monitoring Alerts for Controllers (CMAC).

Implementation of a Runway Monitoring and Conflict Alerting (RMCA) functionality consists of an airport surface surveillance system (i.e. A-SMGCS Surveillance Service - former ICAO Level 1) complemented with a short term conflicting alerting tool that monitors movements on or near the runway and detects conflicts between an aircraft and another mobile as well as runway incursion by intruders. Appropriate alerts are visualised on the controller's HMI.

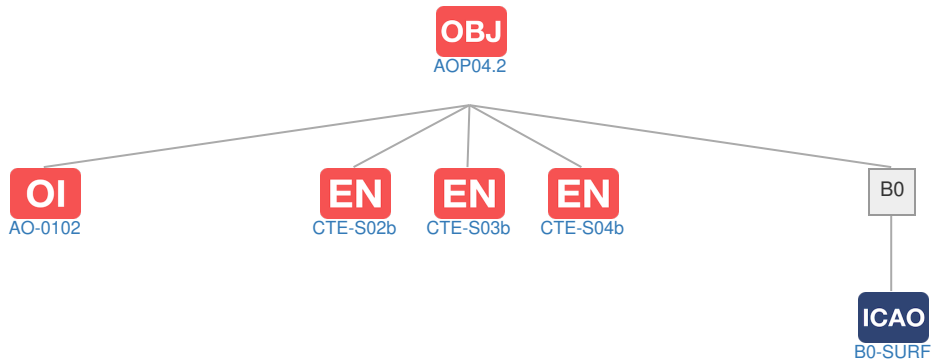
*The implementation of A-SMGCS Surveillance a pre-requisite for the implementation of Runway Monitoring and Conflict Alerting.*

**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.

<b>Edition</b>	2022
<b>Stakeholders</b>	Air Navigation Service Provider / Airport Operator / International Organisations and Regional Bodies
<b>Type</b>	SESAR
<b>Scope</b>	Airport
<b>Status</b>	Active

## Context

### Related Elements



## Applicability Area(s) and Timescales

**Applicability Area :** See list of airports in MP Level 3 Implementation Plan - Annexes (Non-CP1 Airports)

Timescales	From	By	Applicable to
Initial operational capability	01-01-2021	-	Applicability Area
Full operational capability	-	31-12-2025	Applicability Area

## Links to ATM Master Plan Level 2

### **OI** Operational Improvement Steps

Code	Title	IOC	FOC	Related Elements
AO-0102	Automated Alerting of Controller in Case of Runway Incursion or Intrusion into Restricted Areas	30-04-2014	30-04-2018	<b>OI</b> <b>EN</b> <b>OBJ</b> <b>ICAO</b>

### **EN** Enablers

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

### **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-SURF	Improved Runway Safety (A-SMGCS Level 1-2 and Cockpit Moving Map)
		<b>OI</b> <b>OBJ</b>

## References

#### Applicable legislation

None

#### Applicable ICAO Annexes and other references

ICAO Annex 10 - Telecommunications

ICAO Annex 14 - Aerodromes

#### Deployment Programme 2022

-

#### Operating Environments

Airport

## Expected Performance Benefits

<b>Safety</b>	Better situational awareness and support to controller in detecting potentially hazardous conflicts on or near the runway or infringements of runway.
<b>Capacity</b>	-
<b>Operational efficiency</b>	More efficient control of surface traffic.
<b>Cost efficiency</b>	-
<b>Environment</b>	-
<b>Security</b>	-

## Stakeholder Lines of Action

Code	Title	From	By	Related Enablers
REG01	Approve A-SMGCS RMCA implementations for operation	DELETED		<b>EN</b>
ASP01	Install required A-SMGCS RMCA function equipment	01-01-2007	31-12-2025	<b>EN</b>
ASP02	Train aerodrome control staff in the use of A-SMGCS RMCA in the provision of an aerodrome control service	01-01-2007	31-12-2025	
ASP03	Implement approved A-SMGCS RMCA operational procedures	01-01-2007	31-12-2025	<b>EN</b>
APO01	Install required A-SMGCS RMCA function equipment	01-01-2007	31-12-2025	<b>EN</b>
INT01	Coordinate amendments to the related ICAO documentation to include A-SMGCS Level 2 procedures (Airport Safety Support Service - former ICAO Level 2)	FINALISED		<b>EN</b>

## Supporting Material

Title	Related SLoAs
EUROCAE - ED-87E - MASPS for A-SMGCS including Airport Safety Support Service Routing Service and Guidance Service - April 2022 / 04/2022 <a href="https://www.eurocae.net/news/posts/2022/may/ed-87e-masps-for-a-smgcs-including-airport-safety-support-service-routing-service-and-guidance-service/">https://www.eurocae.net/news/posts/2022/may/ed-87e-masps-for-a-smgcs-including-airport-safety-support-service-routing-service-and-guidance-service/</a>	APO01, ASP01
EUROCONTROL - ATCO Rating Training - Training Plans: Aerodrome Training - Annex B: Detailed Training Plans - Edition 1.0 / 03/2004 <a href="https://trainingzone.eurocontrol.int">https://trainingzone.eurocontrol.int</a>	ASP02
EUROCONTROL - SPEC-171 - EUROCONTROL Specification for Advanced-Surface Movement Guidance and Control System (A-SMGCS) Services - Edition 2.0 / 04/2020 <a href="https://www.eurocontrol.int/publication/eurocontrol-specification-smgcs-services">https://www.eurocontrol.int/publication/eurocontrol-specification-smgcs-services</a>	APO01, ASP01, ASP02, ASP03

## Consultation & Approval

<b>Working Arrangement in charge</b>	Airport Operations Team (AOT)
<b>Outline description approved in</b>	-
<b>Latest objective review at expert level</b>	04/2012
<b>Commitment Decision Body</b>	Provisional Council (PC)
<b>Objective approved/endorsed in</b>	07/2005
<b>Latest change to objective approved/endorsed in</b>	07/2014

