

CP1		Active							ECAC+		
INF10.9		Meteorological Information Exchange - Volcanic Ash Mass Concentration information service									
REG	ASP	MIL	APO	USE	INT	IND	NM	MET	AIS	USP	

Subject matter and scope

The ability to establish a collaborative environment within ATM and to move to Trajectory Based Operations depends on the sharing, between all operational stakeholders, of a similar picture of an environment in which flights operate. It requires a wide range of meteorological information to be shared and made available simultaneously to all ATM actors with minimum delay.

This implementation objective is addressing the Volcanic Ash Mass Concentration Service. All volcanic ash advisory information and the supplementary ash concentration information shall be available as a service(s) in compliance with the EUROCONTROL SWIM specifications. The service shall be implemented focusing on provision of volcanic ash concentration information. However, other related information concerning an operationally significant volcanic ash event, will also be considered when implemented as a SWIM service. Volcanic ash SWIM services will be provided by the designated VAAC(s) and available to be accessed by all relevant stakeholders in Europe, including military. Ideally, all stakeholders that use current VA advisory and VA concentration products, will implement the same using the new SWIM service. Volcanic ash service must support exchange of volcanic ash information in IWXXM format, when applicable.

Airspace Users are not mandated, but it is recommended that Airspace Users will be able to access and consume the volcanic ash SWIM information services published by the VAACs. This may require cooperation from any entities that provide flight planning and monitoring functions and that the Airspace Users system uses the volcanic ash information Service.

System requirements

The service(s) will allow for the processing and potential visualisation of safety critical information related to real-time volcanic activity within European airspace and forecasts of anticipated movement and concentration of ash in the atmosphere that is relevant to aviation.

VAACs shall implement service(s) supporting Volcanic Ash Mass Concentration information exchange in case of volcanic eruption and supporting activities provided in EUR/NAT VACP.

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)

Applicability Area 1	All EU SES States		
Applicability Area 2	Azerbaijan, United Kingdom		
Timescales:	From:	By:	Applicable to:
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 -	[IS-0205]-Digital Integrated Briefing for pre-flight phase									
	Enablers -	AIMS-06	AIMS-07a	AIMS-19a	METEO-04b	METEO-05b	REG-0301	SWIM-APS-01a	SWIM-APS-02a	
		SWIM-INFR-05a	SWIM-NET-01a	SWIM-STD-01						
Ol step -	[IS-0901-A]-SWIM-TI Yellow Profile for Ground/Ground (G/G) information sharing									
	Enablers -	REG-0519	SWIM-GOV-05a	SWIM-INFR-05a	SWIM-NET-01a	SWIM-SUPT-01a	SWIM-SUPT-03a			
Ol step -	[MET-0101]-Enhanced MET observations, nowcasts and forecasts provided by ATM-MET systems for planning and near term services									
	Enablers -	METEO-03	METEO-04b	METEO-05b	METEO-06b	METEO-08b				
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

ATM Interconnected Network

SESAR Solution

#34 - Digital Integrated Briefing, #35 - MET Information Exchange, #46 - SWIM Yellow Profile
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ICAO GANP - ASBUs

- none -	
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Deployment Programme

5.4.1	Meteorological Information Exchange
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European Plan for Aviation Safety

- none -	
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Operating Environments

Airport
En-Route
Network
Terminal Airspace

Stakeholder Lines of Action (SLoAs)

SLoA ref.	Title	From	By
INF10.9-ASP01	Consume Volcanic Ash Mass concentration service(s)	01/01/2021	31/12/2025
INF10.9-ASP02	Operational use	01/01/2021	31/12/2025
INF10.9-MET01	Provide Volcanic Ash Mass service(s)	01/01/2021	31/12/2025
INF10.9-MET02	Consume Volcanic Ash Mass concentration service(s)	01/01/2021	31/12/2025
INF10.9-MET03	Operational use	01/01/2021	31/12/2025
INF10.9-NM01	Consume Volcanic Ash Mass concentration service(s)	01/01/2021	31/12/2025
INF10.9-NM02	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

Expected Performance Benefits

Safety:	-
Capacity:	-
Operational Efficiency:	-
Cost Efficiency:	-
Environment:	-
Security:	-

Detailed SLoA Descriptions

INF10.9-ASP01	Consume Volcanic Ash Mass concentration service(s)	From:	By:
		Applicability Area 1: 01/01/2021	Applicability Area 1: 31/12/2025
Action by:	ANS Providers		
Description & purpose:	All ANSPs that require volcanic ash information, will be able to access and consume the volcanic ash SWIM information services published by the VAACs.		

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	<p>Note :Note: In the case of volcanic ash information which is not specified in chapter 4 of Annex V to (EU) 2017/373, i.e. supplementary volcanic ash concentration, it may be produced by an entity other than the VAACs, so long as the consumer has a documented safety case for its use.</p>		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - The system consumes the volcanic ash information Service		
INF10.9-ASP02	Operational use	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	ANS Providers		
Description & purpose:	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.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - Information Exchanges are used for daily operations		
INF10.9-MET01	Provide Volcanic Ash Mass service(s)	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	MET Providers		
Description & purpose:	The designated European VAACs implement SWIM Services for volcanic ash information commensurate with the products listed in chapter 4 of Annex V to (EU) 2017/373, and volcanic ash concentration information service(s). Additional or supplementary volcanic ash SWIM information services may also be considered in this milestone. The services will be available for operational use in the event of a volcanic event within the geographical area of responsibility.		
	<p>Note :This SLoA needs to be synchronised between civil and military ANSPs, NM, MET and AUs.</p>		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - The Volcanic Ash Service is SWIM compliant and available in the SWIM Registry.		
INF10.9-MET02	Consume Volcanic Ash Mass concentration service(s)	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	MET Providers		
Description & purpose:	All MET service providers which require volcanic ash information, including those listed in section 3.5(c) of Annex V to (EU) 2017/373) i.e. MWOs and WAFC, will be able to access and consume the volcanic ash SWIM information services published by the VAACs, including ash concentration service(s).		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - The system consumes the volcanic ash information Service		
INF10.9-MET03	Operational use	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	MET Providers		
Description & purpose:	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.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - Information Exchanges are used for daily operations		
INF10.9-NM01	Consume Volcanic Ash Mass concentration service(s)	From: Applicability Area 1: 01/01/2021	By: Applicability Area 1: 31/12/2025
Action by:	NM		
Description & purpose:	The NM will be able to access and consume the volcanic ash SWIM information services published by the VAACs.		
	<p>Note :Note: In the case of volcanic ash information which is not specified in chapter 4 of Annex V to (EU) 2017/373, i.e. supplementary volcanic ash concentration, it may be produced by an entity other than the VAACs, so long as the consumer has a documented safety case for its use.</p>		

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Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - The system consumes the volcanic ash information Service		
INF10.9-NM02	Operational use	From:	By:
		Applicability Area 1: 01/01/2021	Applicability Area 1: 31/12/2025
Action by:	NM		
Description & purpose:	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.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : https://www.sesardeploymentmanager.eu/publications/deployment-programme		
Finalisation criteria:	1 - Information Exchanges are used for daily operations		

