INF11.2 — Cb-global capability and service

Cb-global capability uses data on cumulonimbus (Cb) clouds from geostationary satellites to detect, track, and nowcast thunderstorms in order to provide pilots an overview of the current weather hazard situation beyond the limited view of the on-board radar. It is relevant for the upper airspace en-route and enables a pilot to strategically plan a safe and smart flight route around the thunderstorms well ahead in time instead of flying tactical manoeuvres and searching for gaps between the thunder cells.

These Cb-global data are provided through the Cb-global service to be used in the cockpit. Hence, the service provides MET hazards information to the flight management operation of a civil airspace user operation centre allowing to improve flight planning.

Cb-global capability is a mature technology, developed during previous European research. SESAR expands this and addresses the delivery of Cb-global data through SWIM technical infrastructure. The data does not require real-time delivery so the service can be supported by SWIM technical infrastructure yellow profile.

The use of Cb-global as an additional strategic planning tool brings operational benefit. This benefit increases if the Cb-global information is used both in the air and on the ground for a common information sharing and common decision making.

It should be noted that other solutions were developed by MET Service Providers in SESAR1 and are already included in the SWIM Registry, which provide harmonised and consolidated observations and forecasts of enroute weather hazards for aviation.

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Edition	2022
Stakeholders	Airspace Users
Type	SESAR
Scope	Local
Status	Initial

Context

Related Elements

INF11.2

Applicability Area(s) and Timescales

Applicability Area: *(Note yet defined)*

Timescales	From	By	Applicable to
IOC used for Analytics functioning only - not for implementation planning	01-07-2022	-	
FOC used for Analytics functioning only - not for implementation planning	-	31-12-2030	

Links to ATM Master Plan Level 2

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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 Block Modules: No associated data

References

Applicable legislation
None
Applicable ICAO Annexes and other references
None
Deployment Programme 2022
-
Operating Environments
-

Expected Performance Benefits

Safety	Enhanced safety.
Capacity	-
Operational efficiency	-
Cost efficiency	Increased cost efficiency. Potential fuel savings.
Environment	-
Security	Enhanced security.

Stakeholder Lines of Action

Code	Title	From	By	Related Enablers
USE01	Consume Cb-Global Service			
MET01	Upgrade systems to provide Cb-Global Capability			
MET02	Upgrade systems to provide Cb-Global Service			
MET03	Provide Cb-Global Service			

Supporting Material

Title	Related SLoAs
SJU - SESAR Solution PJ.18-04b-02: Data pack for Cb-global capability and service https://sesarju.eu/sesar-solutions/improved-met-information-services	MET01, MET02, MET03, USE01

Consultation & Approval

Working Arrangement in charge	-
Outline description approved in	-
Latest objective review at expert level	-
Commitment Decision Body	Provisional Council (PC)
Objective approved/endorsed in	-
Latest change to objective approved/endorsed in	-