SESAR	Active									LOC
COM13	Air Traffic Services (ATS) datalink using SatCom Class B									
REG	ASP	MIL	APO	USE	INT	IND	NM	MET	AIS	USP

Subject matter and scope

Communication services in terms of datalink systems and services are required in support of i4D and Aeronautical information data sharing.

The Iris Precursor service establishes the necessary communication infrastructure to support interoperable Oceanic and Continental i4D operations.The Iris Precursor service deploys an aviation communications service based on the existing Inmarsat SwiftBroadband (SBB) service. This would augment existing VHF Datalink (VDL) capability in Europe to improve current Link2000+ and planned I4D ATS datalink services delivery through increased reliability and capacity, and help establish satellite communications as a key component in the future ATM communications landscape.

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 (Subject to local needs)	All ECAC+ States except: Albania, Armenia, Belgium, Bosnia and Herzegovina, Bulgaria, Estonia, France, Georgia, Greece, Hungary, Israel, Latvia, Lithuania, Moldova, Montenegro, Morocco, North Macedonia, Portugal, Romania, Serbia, Spain		
Timescales:	From:	By:	Applicable to:
IOC used for Analytics functioning only - not for implementation planning	01/07/2022		Applicability Area
FOC used for Analytics functioning only - not for implementation planning		31/12/2030	Applicability Area

References

European ATM Master Plan

OI step -	[POI-0018-COM]-SatCOM Class B for ATM						
	Enablers -	A/C-33a	CTE-C02f				

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

Applicable legislation

None

Essential Operational Changes

CNS Infrastructure and Services

SESAR Solution

#109 - Air Traffic Services datalink using SatCom Class B

ICAO GANP - ASBUs

- none -	

Deployment Programme

- none -	

European Plan for Aviation Safety

- none -	

Operating Environments

COM13	Air Traffic Services (ATS) datalink using SatCom Class B

Airport
En-Route
Terminal Airspace

Stakeholder Lines of Action (SLoAs)

SloA ref.	Title	From	By
COM13-REG01	Approve compliance with safety requirements		
COM13-ASP01	Install and operate commercial SATCOM systems		
COM13-ASP02	Safety Assessment		
COM13-USE01	Upgrade Aircraft avionics		

Description of finalised and deleted SLoAs is available on the eATM Portal @ https://www.eatmportal.eu/working/depl/essip_objectives

Expected Performance Benefits

Safety:	Improvements through enabling initial i4D operations.
Capacity:	-
Operational Efficiency:	-
Cost Efficiency:	Improvements through enabling initial i4D operations.
Environment:	-
Security:	-

Detailed SLoA Descriptions

COM13-REG01	**Approve compliance with safety requirements**	From:	By:
		-	-

Action by:	**Regulatory Authorities**
Description & purpose:	Regulatory Authorities need to ensure that the safety requirements are implemented in line with the safety assessment performed.
Supporting material(s):	ICAO - Doc 9925 - ICAO Manual for Class B (Inmarsat SBB and IRIDIUM Next) Url : https://store.icao.int/ ICAO - Doc 9896 - Manual for the ATN using IPS Standards and Protocols - Edition 2.0 / 2015 Url : https://store1.icao.int/ EUROCAE - ED-243B - Minimum Operational Performance Standards for Avionics Supporting Next Generation Satellite Systems (NGSS) 03/2020 Url : https://eshop.eurocae.net/eurocae-documents-and-reports/ed-243b/ EUROCAE - ED-242B - MASPS for AMS(R)S Data and Voice Communications supporting RCP and RSP 03/2020 Url : https://eshop.eurocae.net/eurocae-documents-and-reports/ed-242b/ ICAO - Annex 10 - Aeronautical Telecommunications Url : http://store1.icao.int/
Finalisation criteria:	1 - Safety requirements in place approved.

COM13-ASP01	**Install and operate commercial SATCOM systems**	From:	By:
		-	-

Action by:	**ANS Providers**
Description & purpose:	Air Navigation Service Providers to install and operate commercial SATCOM system with a satellite A/G datalink to provide service redundancy to the existing terrestrial datalink VDL2, both in multilink and in a standalone environment.
Supporting material(s):	ICAO - Doc 9925 - ICAO Manual for Class B (Inmarsat SBB and IRIDIUM Next) Url : https://store.icao.int/ EUROCAE - ED-242B - MASPS for AMS(R)S Data and Voice Communications supporting RCP and RSP 03/2020 Url : https://eshop.eurocae.net/eurocae-documents-and-reports/ed-242b/ EUROCAE - ED-243B - Minimum Operational Performance Standards for Avionics Supporting Next Generation Satellite Systems (NGSS) 03/2020 Url : https://eshop.eurocae.net/eurocae-documents-and-reports/ed-243b/ ICAO - Doc 9896 - Manual for the ATN using IPS Standards and Protocols - Edition 2.0 / 2015 Url : https://store1.icao.int/ ICAO - Annex 10 - Aeronautical Telecommunications Url : http://store1.icao.int/

COM13	Air Traffic Services (ATS) datalink using SatCom Class B

ATM Master Plan relationship:	[CTE-C02f]-Future Satcom for ATM: SATCOM Class B in Multilink
Finalisation criteria:	1 - The SATCOM system is installed and operational.

COM13-ASP02	Safety Assessment	From:	By:
		-	-

Action by:	ANS Providers
Description & purpose:	A safety assessment of the changes shall be developed in coordination and synchronization with all concerned stakeholders. This safety assessment shall be delivered to the competent authority.
Supporting material(s):	ICAO - Doc 9925 - ICAO Manual for Class B (Inmarsat SBB and IRIDIUM Next) Url : https://store.icao.int/ ICAO - Doc 9896 - Manual for the ATN using IPS Standards and Protocols - Edition 2.0 / 2015 Url : https://store1.icao.int/ EUROCAE - ED-243B - Minimum Operational Performance Standards for Avionics Supporting Next Generation Satellite Systems (NGSS) 03/2020 Url : https://eshop.eurocae.net/eurocae-documents-and-reports/ed-243b/ EUROCAE - ED-242B - MASPS for AMS(R)S Data and Voice Communications supporting RCP and RSP 03/2020 Url : https://eshop.eurocae.net/eurocae-documents-and-reports/ed-242b/ ICAO - Annex 10 - Aeronautical Telecommunications Url : http://store1.icao.int/
ATM Master Plan relationship:	[CTE-C02f]-Future Satcom for ATM: SATCOM Class B in Multilink
Finalisation criteria:	1 - Safety assessment developed and delivered to the competent authority.

COM13-USE01	Upgrade Aircraft avionics	From:	By:
		-	-

Action by:	Airspace Users
Description & purpose:	Upgrade the aircraft avionics with Satellite A-G datalink in multilink or in a standalone environment, based on existing recent commercial SATCOM systems (e.g. Inmarsat SBB). This allows augmentation of the terrestrial VDL2 network capability for increased datalink capacity and availability in continental airspace, and also the capability to extend support for i4D operations in oceanic areas (where the terrestrial VDL capability is not available).
Supporting material(s):	EUROCAE - ED-243B - Minimum Operational Performance Standards for Avionics Supporting Next Generation Satellite Systems (NGSS) 03/2020 Url : https://eshop.eurocae.net/eurocae-documents-and-reports/ed-243b/ EUROCAE - ED-242B - MASPS for AMS(R)S Data and Voice Communications supporting RCP and RSP 03/2020 Url : https://eshop.eurocae.net/eurocae-documents-and-reports/ed-242b/
ATM Master Plan relationship:	[A/C-33a]-Class B SATCOM
Finalisation criteria:	1 - Aircraft avionics upgraded.