Deployment Scenario Title	Independent rotorcraft operations at airports
Deployment Scenario Description	Independent rotorcraft operations at airports: this solution involves the use of rotorcraft-specific and SBAS-based point-in-space (PinS) approach procedures, which aim to improve access to secondary airports in low-visibility conditions.
Essential Operational Change	Multimodal Mobility and integration of all Airspace Users
Maturity	In development phase: Key Solutions Approaching Maturity

Applicable Operating Environment			
Airport	Terminal Airspace	En-Route	Network

Timeline

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
					Deployment																
										Benefit											

Performance Contribution of the DS				
Capacity	Safety	Environment	Cost-efficiency	Operational efficiency

Stakeholders affected (at least one enabler to be deployed)						
ANSP		AO		AU		Network Manager
Civil	Military	Civil	Military	Civil	Military	
TWR, APP, ENR, CNS, SWIM, AIS, MET	TWR, APP, ENR, AIS, MET, AMC	APT Operator	APT Operator	Scheduled, BA Fixed, BA Rotorcraft, GA, FOC	Transport, Fighter, Light, WOC,	Network Manager

SESAR Solutions			
Solution Code	Solution Title	Solution Description	Related Elements
PJ.02-05	Independent Rotorcraft operations at the Airport	Independent Rotorcraft (RC) operations at the airport refer to RC specific approach procedures...	SOL PJ OI DS EOC

Operational Improvement Steps			
OI Step Code	OI Step Title	OI Step Description	Related Elements
AO-0316	Increased Airport Performance through Independent (parallel or convergent) IFR Rotorcraft Operations	Using Rotorcraft specific independent IFR procedures to/from Final Approach & Take-Off areas...	SOL EN DS

Enablers						
Required/ Optional	New/ Inherited	Develop/ Use	Enabler Code	Enabler Title	Enabler Description	Related Elements

Enablers						
Required/ Optional	New/ Inherited	Develop/ Use	Enabler Code	Enabler Title	Enabler Description	Related Elements
🔒			A/C-01	Enhanced positioning for LPV/RNP based on Single Frequency SBAS	Enhanced positioning for Localizer Precision with Vertical Guidance Approach based on Single...	STK OI EN DS
🔒			A/C-04	Flight management and guidance for improved lateral navigation in approach via RNP	Flight management and guidance to improve lateral navigation in approach e.g. 2D RNP value down...	STK OI EN DS
🔒			A/C-04a	Flight management and guidance for Advanced RNP	Flight management and guidance for Advanced RNP i.e. RNP1 with more deterministic FRT in...	STK OI EN DS
🔒			A/C-04b	Flight management and guidance for RNP 0.3 (Category H(rotorcraft)) in all phases of flight, except final approach and initial missed approach	The helicopter community identified a need for a specification that has a single accuracy of...	STK OI DS
🔒			A/C-06	Flight management and guidance for LPV approach based on SBAS	Flight management and guidance for Localizer Precision with Vertical guidance approach (LPV)...	STK OI EN DS
🔒			A/C-07	Flight management and guidance for RNP transition to ILS/GLS/LPV	Flight management and guidance for curved approach (requiring FMS capable of Radius to Fix) with...	STK OI EN DS PCP
→			REG-0009	AMC for Curved Approaches	To be confirmed, pending project 09.12 outcome. Need for coordination between EASA and European...	OI EN
🔒			PRO-251	ATC Procedure to handle SNI IFR rotorcraft operations using PinS	ATC Procedure to handle SNI IFR rotorcraft operations using PinS. This covers specific Flight...	STK OI EN DS
→			A/C-02a	Enhanced positioning using GBAS single frequency	Enhanced positioning using GBAS single frequency (GPS L1)	STK OI EN DS
→			A/C-23a	Synthetic vision in low visibility conditions	Synthetic vision (SV) in Low Visibility Conditions to facilitate approach	STK OI EN
→			BTNAV-0504	Update of Minimum Performance Standard for Airborne Synthetic Vision (SV)	ED-180 (EUROCAE WG-79 equivalent for DO-315B MASPS for SVS_150ftDA (2011))	OI EN
→			AIMS-23	Enhanced digital data chain to ensure Aeronautical Information data provision to meet full 4D trajectory management requirements	Enhanced aeronautical information data provision chain enabling the provision of high quality...	STK OI DS
→			BTNAV-0502	Update of Minimum Performance Standard for Enhanced Vision (EV)	New EUROCAE standard(s) based on: - DO-315 / ED-179A MASPS for EVS, SVS, CVS and EFVS (no...	OI EN
→			BTNAV-0503	New ARP standard for Transport Category Airplane HUD/SVS systems	Proceed with the development of Transport Category Airplane Head Up Display (HUD) Systems	OI

Enablers						
Required/ Optional	New/ Inherited	Develop/ Use	Enabler Code	Enabler Title	Enabler Description	Related Elements
→			BTNAV-0504	Update of Minimum Performance Standard for Airborne Synthetic Vision (SV)	ED-180 (EUROCAE WG-79 equivalent for DO-315B MASPS for SVS_150ftDA (2011))	OI EN
→			CTE-N07a	GBAS Cat I based on Single-Constellation / Single-Frequency GNSS (GPS L1)	GBAS Cat I is deployed as a precursor to GBAS Cat II/III to support validation of precision...	STK OI EN
→			METEO-03c	Provision and monitoring of real-time airport weather information for time-based separation and curved approaches	ATM-MET ground based sub-system dedicated to acquire, collect, combine, provide and monitor...	STK OI EN DS
→			METEO-04c	Generate and provide MET information relevant for Airport and approach related operations at short notice ('time to decision' between 3 minutes and 7days) including rotorcraft and RPAS	The ATM-MET system is acquiring, generating, assembling and providing Meteorological (MET)...	STK OI EN DS
→			METEO-05c	Generate and provide MET information relevant for TMA and En-route related operations at short notice ('time to decision' between 3 minutes and 7days), including for low-level IFR operations.	The ATM-MET system is acquiring, generating, assembling and providing Meteorological (MET)...	STK OI EN DS
→			REG-0009	AMC for Curved Approaches	To be confirmed, pending project 09.12 outcome. Need for coordination between EASA and European...	OI EN
→			STD-025	Harmonisation Specifications on Ground Based Augmentation System Ground Equipment to Support Category I Operations	Planned for ETSI	OI EN
→			STD-043	EN 303 084, Ground Based Augmentation System (GBAS) VHF ground-air Data Broadcast (VDB)	ETSI Technical characteristics and methods of measurement for ground-based equipment; Harmonized...	OI EN
→			STD-067	DO-253D 'GBAS MOPS' & DO-246E 'GBAS ICD'	Main standards for the GBAS airborne receiver	OI EN