PCP	Removed		ECAC+
FCM05	**Interactive Rolling NOP**		

REG	ASP	MIL	APO	USE	INT	IND	NM	MET	AIS	USP

Subject matter and scope

The first steps of the interactive rolling NOP were already implemented through the deployment of the NOP portal (through n-CONECT platform and B2B services). Further information and data have been deployed to support the interactive approach to the NOP (e.g. ADR, DDR2,...) and the access to the NOP data will be more and more available through B2B services. Most of the enablers required are expected to be gradually deployed over this period.

The scope of this Implementation Objective consists in the implementation of a platform that uses the state-of-the-art technologies for creation of a virtual operations room for the physically distributed European ATM network operations, in support of the collaborative NOP. This platform will support the network collaborative rolling processes from strategic to real-time operations, including capabilities for online performance monitoring integrated and feeding back into the collaborative network planning. Also, the platform provides access to post-operational data for offline analysis and performance reporting.

Information and dialogue tools shall be accessed via an ATM Information Portal. Access to information is done in a secure way, tailored according the stakeholders needs and subject to access control rules, so that only those who have an operational need to access particular information are able to do so.
In addition, this Implementation Objective also covers the NM system upgrades related to AOP-NOP B2B interface for data exchanges with selected airports.

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.

NOTE: The deleted SLoAs ASP01 and ASP02 appear since the 2016 Edition in objective AOM19.1. The deleted SLoA NM11 is addressed by the objective INF08.1

Applicability Area(s) & Timescale(s)

Applicability Area	

Timescales:		From:	By:	Applicable to:
Initial operational capability		01/09/2013		Applicability Area
Full operational capability			01/01/2022	Applicability Area

References

European ATM Master Plan

OI step -	[AOM-0202]-Enhanced Real-time Civil-Military Coordination of Airspace Utilisation							
	Enablers -	AAMS-06a	AAMS-08 AOM19.5	AAMS-09 AOM19.5	AAMS-10a AOM13.1	AAMS-15	AIMS-06	AIMS-21	AIMS-22
		PRO-184 AOM19.5							

OI step -	[AOM-0205]-Modular Temporary Airspace Structures and Reserved Areas							
	Enablers -	AAMS-08 AOM19.5	NIMS-14a	PRO-009	PRO-082	PRO-185			

OI step -	[DCB-0102]-Interactive Rolling NOP							
	Enablers -	AAMS-06a	AIMS-21	PRO-035					

OI step -	[DCB-0103-A]-Initial collaborative NOP							
	Enablers -	AIRPORT-38	METEO-06b	MIL-0502	NIMS-13b FCM04.2	NIMS-14b	NIMS-25	PRO-028	REG-0518
		SWIM-APS-01a	SWIM-APS-02a	SWIM-APS-03a	SWIM-APS-04a	SWIM-INFR-05a	SWIM-NET-01a		

OI 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		

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) No 716/2014 on the establishment of the Pilot Common Project

Essential Operational Changes

- none -

SESAR Solution

#20 - Collaborative NOP for Step 1, #21 - Airport Operations Plan and AOP-NOP Seamless Integration

ICAO GANP - ASBUs

- none -	

Deployment Programme

- none -	

European Plan for Aviation Safety

- none -	

Operating Environments

Airport
En-Route
Network
Terminal Airspace

Stakeholder Lines of Action (SLoAs)

SloA ref.	Title	From	By
FCM05-REG01	Review, as appropriate, the safety argument of the changes to the ASM system, supporting the implementation of interactive Rolling NOP by the NM	**DELETED**	
FCM05-ASP01	Upgrade the automated ASM support system with the capability of AIXM 5.1 B2B data exchange with NM	**DELETED**	
FCM05-ASP02	Perform an integration of the automated ASM support systems with the Network	**DELETED**	
FCM05-ASP03	Produce a safety assessment on the upgrade of automated ASM support systems to the AIXM 5.1 capability	**DELETED**	
FCM05-ASP04	Develop and implement ATFCM procedures for interaction with the NOP	01/09/2016	01/01/2022
FCM05-ASP05	Train the relevant personnel for interaction with the NOP	01/09/2016	01/01/2022
FCM05-APO01	Provide the required data to the Network Manager for DDR	**FINALISED**	
FCM05-APO02	Perform the integration of the AOP with the NOP	01/01/2015	01/01/2022
FCM05-USE01	Provide the required data to the Network Manager for DDR	**FINALISED**	
FCM05-NM01	ADR to provide, common and consolidated view of European airspace data containing both static and dynamic digital data	**FINALISED**	
FCM05-NM02	Upgrade NM system for external user access to the airspace data repository (making restrictions available in AIXM 5.1 format via B2B)	**FINALISED**	
FCM05-NM03	Equip Airspace management system with tools for collection of airspace data (Interoperability with ASM tools in AIXM 5.1)	**FINALISED**	
FCM05-NM04	Perform an integration of ASM support systems with the Network	**FINALISED**	
FCM05-NM05	Upgrade NM systems to allow the access of interested users to the Demand Data Repository	**FINALISED**	
FCM05-NM06	Implement FCM Procedures for on-line access/update to the NOP and notification of updates	**FINALISED**	
FCM05-NM07	Upgrade NM systems to allow FMP to remote access simulation via the NOP Portal (create of simulations and assessment of the results) and in a second step to edit scenario measures (regulation, config, capacities,...) prior to running simulations	**FINALISED**	
FCM05-NM08	Flight Plan filing capability directly via the NOP portal	**FINALISED**	
FCM05-NM09	Develop AOP/NOP interfaces	**FINALISED**	

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FCM05-NM10	Integrate the AOPs into the Network Operation Plan	01/01/2016 01/01/2022	
FCM05-NM11	Develop Network Manager B2B services	**DELETED**	
FCM05-NM12	Enhance the NM technical platform and services	01/09/2016	01/01/2022
FCM05-NM13	Implement ATFCM procedures	01/09/2016	01/01/2022

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

Expected Performance Benefits

Safety:	Enhanced by improved sharing of the network situation.
Capacity:	Small benefits through improved use of the airport and airspace capacity resulting from a better knowledge of the airspace availability and of the traffic demand.
Operational Efficiency:	-
Cost Efficiency:	Enhanced through use of cost efficient tools to access network information instead of expensive local tools or procedures.
Environment:	-
Security:	-

Detailed SLoA Descriptions

FCM05-ASP04	Develop and implement ATFCM procedures for interaction with the NOP	From: 01/09/2016	By: 01/01/2022
Action by:	**ANS Providers**		
Description & purpose:	The SLoA addresses the definition, validation and deployment of the new/changed operational procedures pertinent to the interaction with the NOP.		
Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf SJU - SESAR Solution 20: Data Pack for initial collaborative Network Operations Plan (NOP) Url : https://www.sesarju.eu/sesar-solutions/initial-collaborative-network-operations-plan-nop		
ATM Master Plan relationship:	[PRO-035]-FCM Procedures for on-line access/update to the NOP and notification of updates		
Finalisation criteria:	1 - The procedures are in use		

FCM05-ASP05	Train the relevant personnel for interaction with the NOP	From: 01/09/2016	By: 01/01/2022
Action by:	**ANS Providers**		
Description & purpose:	Ensure that all operational personnel concerned is adequately trained for their job functions in relation to the interaction with the rolling NOP.		
Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf SJU - SESAR Solution 20: Data Pack for initial collaborative Network Operations Plan (NOP) Url : https://www.sesarju.eu/sesar-solutions/initial-collaborative-network-operations-plan-nop		
Finalisation criteria:	1 - Training plans covering interaction with the NOP have been developed and implemented		

FCM05-APO01	Provide the required data to the Network Manager for DDR	From: 01/09/2013	By: 01/01/2022
Action by:	**Airport Operators**		
Description & purpose:	Coordinated Airports to provide the Airport slots information in SSIM format to EUACA. From this, EUACA will compile them and will transmit them to NM in a EUACA format.		
Supporting material(s):	IATA - Standard Schedules Information Manual - Edition 29 Url : https://www.iata.org/publications/store/Pages/standard-schedules-information.aspx SJU - SESAR Solution 21: Data Pack for AOP-NOP seamless integration Url : http://www.sesarju.eu/sesar-solutions/high-performing-airport-operations/airport-operations-plan-aop-and-its-seamless		
ATM Master Plan relationship:	[NIMS-14b]-Demand Data Repository Phase II		
Finalisation criteria:	1 - Airport slot information provided to DDR.		

FCM05-APO02	Perform the integration of the AOP with the NOP	From: 01/01/2015	By: 01/01/2022

FCM05	Interactive Rolling NOP

Action by:	Airport Operators
Description & purpose:	Linking AOP with NOP (Airport Business Trajectory and User Preferred Trajectory) will contribute in optimising both Network and Airport management. This will be achieved by timely and simultaneously updating AOP and NOP, providing Network and Airport Managers with a commonly updated, consistent and accurate Plan. The AOP is therefore the tool which provides/integrates the airport information into the Network (NOP). This is done by sharing information with NOP or by requesting information from the NOP. The AO will have to ensure that AOP core information is provided to the NOP and that change in information in the AOP with anticipated impact on the network is made available to the NOP according with the appropriate agreed quality of service.
Supporting material(s):	SJU - OFA 05.01.01 - Airport Operations Centre Definition - Operational Service and Environment Definition Part 1 - 00.03.00 / 12/2014 SJU - SESAR Solution 21: Data Pack for AOP-NOP seamless integration Url : http://www.sesarju.eu/sesar-solutions/high-performing-airport-operations/airport-operations-plan-aop-and-its-seamless
ATM Master Plan relationship:	[AIRPORT-38]-Airport/ATFCM Extended data interface [PRO-028]-Procedures to support AOP-NOP collaborative process
Finalisation criteria:	1 - The relevant AOP information is made available to the NOP 2 - The relevant NOP information is integrated into the AOP

FCM05-USE01	Provide the required data to the Network Manager for DDR	From: 01/09/2013	By: 01/01/2022

Action by:	Airspace Users
Description & purpose:	Airspace users to provide the scheduled flight information.
Supporting material(s):	IATA - Standard Schedules Information Manual - Edition 29 Url : https://www.iata.org/publications/store/Pages/standard-schedules-information.aspx SJU - SESAR Solution 20: Data Pack for initial collaborative Network Operations Plan (NOP) Url : https://www.sesarju.eu/sesar-solutions/initial-collaborative-network-operations-plan-nop
ATM Master Plan relationship:	[NIMS-14b]-Demand Data Repository Phase II
Finalisation criteria:	1 - Scheduled flight information is provided.

FCM05-NM01	ADR to provide, common and consolidated view of European airspace data containing both static and dynamic digital data	From: 01/09/2013	By: 31/12/2014

Action by:	NM
Description & purpose:	Provide, common and consolidated view of European airspace data containing both static and dynamic digital data: - Enabling the optimization of flight planning making available the changes made to the airspace usage & route availability (e-AMI, e-Restrictions) - Improvement of data quality and interoperability through digital data exchange of ATM data
Supporting material(s):	EUROCONTROL - NM B2B Reference Manuals - access available on request to NM Url : http://www.eurocontrol.int/articles/nm-services-and-products
ATM Master Plan relationship:	[AIMS-20]-Airspace Data Repository
Finalisation criteria:	1 - Common and consolidated view of European Airspace data has been made available

FCM05-NM02	Upgrade NM system for external user access to the airspace data repository (making restrictions available in AIXM 5.1 format via B2B)	From: 01/09/2013	By: 31/12/2014

Action by:	NM
Description & purpose:	Update NM system to allow all external Stakeholders to access the Airspace Data repository in AIXM 5.1 B2B protocol (e-AMI)
Supporting material(s):	EUROCONTROL - NM B2B Reference Manuals - access available on request to NM Url : http://www.eurocontrol.int/articles/nm-services-and-products
ATM Master Plan relationship:	[AIMS-21]-Airspace management system enhanced for external user access to the airspace data repository
Finalisation criteria:	1 - NM system Airspace data repository accessible through AIXM 5.1 B2B protocol for e-AMI

FCM05-NM03	Equip Airspace management system with tools for collection of airspace data (Interoperability with ASM tools in AIXM 5.1)	From: 01/09/2013	By: 31/12/2014

Action by:	NM
Description & purpose:	Update NM systems to allow exchange of airspace data in AIXM 5.1 B2B with local ASM tools
Supporting material(s):	EUROCONTROL - NM B2B Reference Manuals - access available on request to NM Url : http://www.eurocontrol.int/articles/nm-services-and-products
Finalisation criteria:	1 - NM systems have been updated to allow exchange of airspace data in AIXM 5.1 B2B with local ASM tools.

FCM05-NM04	Perform an integration of ASM support systems with the Network	From:	By:

FCM05	Interactive Rolling NOP

		01/09/2013	31/12/2017
Action by:	**NM**		
Description & purpose:	Integrate the local/regional automated ASM support tools with the NM system		
Supporting material(s):	EUROCONTROL - NM B2B Reference Manuals - access available on request to NM Url : http://www.eurocontrol.int/articles/nm-services-and-products		
Finalisation criteria:	1 - Local/Regional automated ASM support systems using AIXM 5.1 B2B have been integrated with NM systems.		

FCM05-NM05	**Upgrade NM systems to allow the access of interested users to the Demand Data Repository**	From: 01/09/2013	By: 30/09/2013
Action by:	**NM**		
Description & purpose:	NM systems are updated to make the DDR (phase 2) available		
Supporting material(s):	EUROCONTROL - Demand Data Repository (DDR) project Url : http://www.eurocontrol.int/services/demand-data-repository-ddr		
ATM Master Plan relationship:	[NIMS-14b]-Demand Data Repository Phase II		
Finalisation criteria:	1 - DDR Phase 2 has been made available.		

FCM05-NM06	**Implement FCM Procedures for on-line access/update to the NOP and notification of updates**	From: 01/09/2013	By: 31/12/2017
Action by:	**NM**		
Description & purpose:	Develop the necessary procedures for NOP access (incremental work, a set of procedures for each yearly version)		
Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf		
ATM Master Plan relationship:	[PRO-035]-FCM Procedures for on-line access/update to the NOP and notification of updates		
Finalisation criteria:	1 - Procedures are available		

FCM05-NM07	**Upgrade NM systems to allow FMP to remote access simulation via the NOP Portal (create of simulations and assessment of the results) and in a second step to edit scenario measures (regulation, config, capacities,...) prior to running simulations**	From: 01/09/2013	By: 31/12/2013
Action by:	**NM**		
Description & purpose:	NM systems are updated to allow FMP to remote access simulation via the NOP Portal (creation of simulations and assessment of the results) and in a second step to edit scenario measures (regulation, configuration, capacities,...) prior to running simulations		
Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf		
ATM Master Plan relationship:	[AAMS-15]-Scenario management sub-system equipped with tools to support pre-tactical CDM		
Finalisation criteria:	1 - NM systems have been updated		

FCM05-NM08	**Flight Plan filing capability directly via the NOP portal**	From: 01/09/2013	By: 31/12/2014
Action by:			
Description & purpose:	NM systems updated to provide the Airspace Users with a Flight Plan filling capability through the NOP portal.		
Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf		
Finalisation criteria:	1 - NM systems and NOP portal have been updated.		

FCM05-NM09	**Develop AOP/NOP interfaces**	From: 01/01/2015	By: 01/01/2022
Action by:	**NM**		
Description & purpose:	Linking AOP with NOP will contribute in optimising both Network and Airport management. This will be achieved by developing AOP/NOP B2C and B2B interfaces., providing NOP and AOPs with a commonly updated, consistent and accurate data . The NM will have to ensure that relevant information for airport operations, which may be contained in the AOPs, is shared with the relevant part of the NOP.		

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Supporting material(s):	SJU - OFA 05.01.01 - Airport Operations Centre Definition - Operational Service and Environment Definition Part 1 - 00.03.00 / 12/2014
	SJU - SESAR Solution 20: Data Pack for initial collaborative Network Operations Plan (NOP)
	Url : https://www.sesarju.eu/sesar-solutions/initial-collaborative-network-operations-plan-nop
ATM Master Plan relationship:	[AIRPORT-38]-Airport/ATFCM Extended data interface
Finalisation criteria:	1 - Availability of AOP/NOP B2B and B2C interfaces

FCM05-NM10	**Integrate the AOPs into the Network Operation Plan**	From: 01/01/2016 01/01/2022	By: -
Action by:	**NM**		

| **Description & purpose:** | Linking AOP with NOP will contribute in optimising both Network and Airport management. This will be achieved by timely and simultaneously updating NOP with AOPs data, providing NOP and AOPs with a commonly updated, consistent and accurate data. The AOP is therefore the tool which provides the airport information into the Network (NOP). This is done by sharing information between the NOP and the AOP.

The NM will have to ensure that relevant information for airport operations, which may be contained in the AOPs, are shared with the relevant part of the NOP. |
|---|---|
| **Supporting material(s)**: | SJU - OFA 05.01.01 - Airport Operations Centre Definition - Operational Service and Environment Definition Part 1 - 00.03.00 / 12/2014 |
| | SJU - SESAR Solution 20: Data Pack for initial collaborative Network Operations Plan (NOP) |
| | Url : https://www.sesarju.eu/sesar-solutions/initial-collaborative-network-operations-plan-nop |
| **ATM Master Plan relationship:** | [AIRPORT-38]-Airport/ATFCM Extended data interface |
| | [PRO-028]-Procedures to support AOP-NOP collaborative process |
| **Finalisation criteria:** | 1 - Integration of relevant AOP data for a specific airport into NOP
2 - The relevant NOP information is made available to the AOP |

FCM05-NM12	**Enhance the NM technical platform and services**	From: 01/09/2016	By: 01/01/2022
Action by:			

Description & purpose:	The enhancement of NM's technical platform and services will address the following: - Extension of NM interfaces with new functional capabilities - Migration of the variety of interfaces it currently provides (CHMI variants, the NOP Portal) into a single, redesigned HMI for all users, fit for purpose and flexible enough to meet the needs of the different user roles (both internal and external). - system upgrades for enhanced planning process (integration of planning tool, tools to support collaborative dynamic planning, simulation tools) - enhancements of post-analysis tools and process - support the needs in terms of user interfaces for other NM projects
Supporting material(s):	SJU - SESAR Solution 20: Data Pack for initial collaborative Network Operations Plan (NOP)
	Url : https://www.sesarju.eu/sesar-solutions/initial-collaborative-network-operations-plan-nop
Finalisation criteria:	1 - NM technical platform and services have been upgraded

FCM05-NM13	**Implement ATFCM procedures**	From: 01/09/2016	By: 01/01/2022
Action by:	**NM**		

Description & purpose:	The SLoA addresses the definition, validation and deployment of the new/changed operational procedures pertinent to the NM system changes, including FCM procedures for redesigned NM HMI as well as procedures related to post OPS analysis process.
Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119
	Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf
	SJU - SESAR Solution 20: Data Pack for initial collaborative Network Operations Plan (NOP)
	Url : https://www.sesarju.eu/sesar-solutions/initial-collaborative-network-operations-plan-nop
ATM Master Plan relationship:	[PRO-035]-FCM Procedures for on-line access/update to the NOP and notification of updates
Finalisation criteria:	1 - The procedures are in use