

NETWORK MANAGER RELEASE NOTES

**PLANNED FOR IMPLEMENTATION IN
2016-2017**



**EUROCONTROL
Edition N°: 2.7**

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Edition No: 2.7
Edition Issue date: 10/10/2016
File name: Network Manager Release Notes planned for implementation for 2016-2017
Number of pages: 56
Classification: Public

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Document Changes Record

Ed.	Status	Date	Reason for change
1.0	Published	07/10/2015	First edition
1.1	Published	09/11/2015	Additional information on several NM20.0 FBs
1.2	Published	30/11/2015	- Postponement of NM20.0 migration (§4.1). - Additional information on FB762 in particular TTO field format and examples.
1.3	Published	15/01/2016	- NM20.0 migration plan - New dates for the OPT session - Several additional information on FBs or CRs (including new CR_040539 - Change IFPS parameters)
1.4	Published	02/02/2016	- Link to the NM20.0 presentation to Externals - Link to the NM20.0 OPT instructions - Additional information on several FBs
1.5	Published	17/02/2016	- FB703: names of ADEXP fields modified - NM20.0 migration: information on NM B2B PREOPS availability
2.0	Published	28/04/2016	- Content of NM20.0.1 - Content of NM20.5
2.1	Published	09/06/2016	- Additional information on NM20.5 FBs - Postponement of NM20.0.1 deployment - NM20.5 Browsers policy - NM20.5 REGCAUSE field format change (FB772)
2.2	Published	30/06/2016	- NM20.5 OS Policy - Additional information on NM20.5 FBs
2.3	Published	18/07/2016	- NM20.5 migration plan - NM20.5 OPT instructions - Additional information on NM20.5 FBs
2.4	Published	11/08/2016	- NM20.5 CHMI availability dates change (§4.3.3) - NM20.5 OPT dates change (§4.3.2) - Additional information on NM20.5 FBs
2.5	Published	19/09/2016	- Additional information on NM20.5 FBs
2.6	Published	29/09/2016	- New NM20.5 migration plan (§4.3.3)
2.7	Published	10/10/2016	- OPT session has been extended (§4.3.2)

1. INTRODUCTION

This document describes the **new** or **modified** functions that are delivered by the Network Manager as part of the Network Manager software Releases and that impact external users.

The objective of this document is to provide users of the Network Manager Services with advance notice of modifications in order to anticipate any **impact** upon their operational procedures and/or systems.

The Network Manager Releases include many changes arising from different sources and coordinated through the Operations Coordination Group and its sub-groups. It allows the implementation of new functionalities to cope with Network Manager Directorate Business plans.

The Network Manager Release Notes document is organized as a rolling document describing the functions currently under development for future releases. Other functions considered for possible development but without reaching yet a maturity status allowing their presentation are not included in this document.

To receive automatically by eMail the new versions of the Release Notes, please register at:

<http://www.eurocontrol.int/network-operations/self-registration-form>

(Choose "Subscribe to receive e-mail notifications when the NM Release Notes are updated" in the field "purpose of the request").

The current document is available at:

<http://www.eurocontrol.int/lists/publications/network-operations-library?type=3317&keyword=>

<p>Any questions or comments regarding the Network Manager Releases shall be sent at: nm.releases@eurocontrol.int</p>
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2. RELEASES CONTENT

The table below provides the FBs or CRs that have an impact on External users. The FB or CRs that have an impact only on internal-NM users are not listed.

Programme	Functional Block	NM20.0	NM20.0.1	NM20.5
Airspace Management and Advanced FUA	§3.1			
FB700	New ASM AUP template Phase 2	§5.2.1		
FB725	Dynamic creation and update of ad-hoc airspaces	§5.2.1		
FB720	ASM Improvements			§5.3.1
FB779	New ASM AUP template Phase 3			
FB794	Fine-tuning of FB725 (Dynamic creation and update of ad-hoc airspaces)			§5.3.1
Cooperative Traffic Management	§3.2			
FB762	Move from CTOT to TTO	§5.2.2		
FB730	Slot swapping			§5.3.2
NOP Information Services	§3.3			
FB644	AIM/ANM publication (via AFTN and SITA Type B) phase out	§5.2.3		
FB782	Network Events Tool Phase 5b	§5.2.3		
TB245	FPL distribution via B2B Publish/Subscribe	§5.2.3		
FB767	NM B2B improvements			§5.3.3
FB785	Flight status/situation via publish/subscribe			§5.3.3
FB791	Dynamic Network Plan			§5.3.3
CR_040708	EAUP / EUUP eMail subscription			§5.3.3
FB795	New NM B2B Web Service for First System Activation (FSA)			§5.3.3
Operations Improvements	§3.4			
FB733	FPL Domain improvements	§5.2.4		
FB734	Airspace Data Domain improvements	§5.2.4		
FB735	ATFCM Domain improvements	§5.2.4		
FB741	Flight status/situation via publish/subscribe	§5.2.4		
FB756	NM B2B improvements	§5.2.4		
FB792	Improve EFD Accuracy	§5.2.4		
FB798	Airspace Data Domain improvements			§5.3.4
FB799	ATFCM Domain improvements			§5.3.4
Performance Programme	§3.5			
FB703	Performance Work Programme	§5.2.5		
FB750	REA Message – Delay calculation	§5.2.5		
FB772	Performance Work Programme			§5.3.5
Airport and TMA Network Integration	§3.6			
FB740	Departure Planning Info provision via B2B	§5.2.6		
CR_037419	Display TOBT / TSAT / TT in the protected NOP Portal flight list			§5.3.6
FB753	Airport Programme			§5.3.6
FB765	File DLA on behalf of AO based upon DPI data fields – Part 2			
FB777	Improve ATC-DPI Processing			
FB778	DPI Improvements			
Other Projects				
FB754	Network Events Tool Phase 6			
FB759	Post-Deployment CCAMS Transponder Code Function			§5.3.7
FB760	Extend 833 Warning Mechanism			§5.3.7
STANDALONE CRs or I2s				
CR_035843	SSR Code in CHMI Flight Lists and flight data	§5.2.7		

v2.1: FB751 is removed from the Release Notes as it will not impact externals. FB765 and FB777 are removed out of the Release NM20.5.

v2.2: FB778 and FB779 are removed out of the Release NM20.5.

v2.3: CR_037419 has been postponed from NM20.0.1 to NM20.5

2.1. IMPORTANT NOTIFICATIONS RELATED TO RELEASE MIGRATION

2.1.1. NM20.0

2.1.1.1. NM20.0 - Browser compatibility

In NM20.0, the following browsers are recommended:

- Firefox 38 ESR (Extended Support Release) until May 2016 and Firefox 45 ESR from June 2016 onwards.
- Internet Explorer 11.

In addition, NM applications are still supported on Firefox 38 ESR and Internet Explorer 10 on best effort basis (regression testing has been performed).

2.1.1.2. NM20.0 - Operating System compatibility

In NM20.0, Windows versions other than Windows 7 are not supported for CHMI.

2.1.1.3. NM20.0 - Phase-out of AIM/ANM publication via AFTN and SITA Type B

Please refer to FB644 for more details.

2.1.1.4. NM20.0 - Decommission of NM18.0 B2B Services

It shall be noted that the NM18.0 B2B services will be decommissioned with the NM20.0 migration.

2.1.2. NM20.5

2.1.2.1. NM20.5 - Browser compatibility

In NM Release 20.5, the following browsers are recommended:

- Firefox 45 ESR (Extended Support Release)
- Internet Explorer 11

In addition, NM applications are still supported on Internet Explorer 10 on best effort basis (regression testing has been performed).

2.1.2.2. NM20.5 - Operating System compatibility

In NM20.5, Windows versions other than Windows 7 are not supported for CHMI.

2.1.2.3. NM B2B web service

2.1.2.3.1. NM20.5 - Decommission of old NM B2B URLs on PREOPS

As announced during the NM B2B technical forum and in the NM B2B documentation, the old NM B2B URLs will be decommissioned for PREOPS with NM20.5.

- Old B2B URLs for PREOPS to be decommissioned:

https://www.nm.eurocontrol.int:16443/B2B_PREOPS

- New URLs (already operational) using port 443 instead of 16443 for the old URLs:

https://www.b2b.preops.nm.eurocontrol.int/B2B_PREOPS

Please note that old URLs for OPS will be decommissioned with NM21.0.

2.1.2.3.2. NM20.5 - NM B2B: Unavailability of version NM18.5

It is reminded to the NM B2B users that a NM B2B version remains available during two years after its deployment ("NOP/B2B Reference Manuals - Essentials" documentation, available on the NM B2B OneSky Team website).

As a consequence, NM18.5 will no more be available (OPS and PREOPS) after NM20.5 migration.

2.1.2.4. NM20.5 - Update of the Regulation Reason codes (REGCAUSE) based on IATA field code

The ADEXP field "-REGCAUSE" format will change in all messages where this field is used (SAM, SRM and FLS messages).

Please cf. paragraph related to FB772 (Performance Programme - CR_040931) for more details.

3. NETWORK STRATEGIC PROJECTS

You will find below a short description of each Programme that the Network Manager developments are serving.

3.1. AIRSPACE MANAGEMENT AND ADVANCED FUA

ASM and Advanced FUA are major components of the Network Strategy Plan (NSP) 2015/2019. The project contributes directly to the NSP Strategic Objective 3 (SO3) "Implement a de-fragmented and flexible airspace enabling Free Routes", together with the "Free Route Airspace" network strategic project.

The Project will aim at:

- Introducing performance driven operations based on the management of Airspace Configurations in fixed route network and FRA environments.
- Providing processes that support the use of more dynamic and flexible elements.
- Describing a seamless, CDM based process with an advanced real time management of Airspace Configurations as well as a continuous sharing of information among all ATM partners enabled by advanced technology.

The main Lines of Improvement of the Project are:

- Airspace Configuration Definition and Operational Deployment.
- A Collaborative Decision Making Process (ASM/ATFCM/ATC integration).
- The Rolling Process.
- ASM solutions to improve network performance.
- ASM operations in FRA environments.
- ASM system support and data management.
- ASM post ops and performance planning.

3.2. COOPERATIVE TRAFFIC MANAGEMENT

Cooperative Traffic Management is the collaborative process of determining and implementing optimal solutions for network operations through continuous information sharing of individual and local preferences, by cooperation between actors in the planning and execution phases of ATM.

The purpose of CTM Strategic Project is to support capacity, flight efficiency and cost-efficiency performance improvements required in the context of the SES RP2 performance targets. The CTM Strategic Project addresses the interface between ATFCM and Tactical Capacity Management and intends to reduce the gap between planning and execution phases.

The CTM Strategic Project aims to optimize the delivery of traffic through a cooperative approach between Network, ATC, Flight operations and Airports, and the introduction of time based processes that facilitate a smoother and more predictable sequencing of flights into ATC sectors and Airports. This involves the development and implementation of activities in 5 broadly defined areas of work, namely:

- Short Term ATFCM Measures (STAM)
- Improved Predictability and Flight Plan Adherence
- Target Times Operations for ATFCM purposes
- Support to Arrival Sequencing
- Initial UDPP – Slot swapping

- **STAM**

The responsibilities and supporting procedures between NM and the ANSP for the execution of Tactical ATFCM are currently under review to cope with the evolutions of the roles and responsibilities in ATFCM. The Programme will also improve the support to the NM stakeholders (helpdesk, AOLO, etc.) and the access to the NM services in particular for the FMPs (CIFLO, Web services, etc.)

In order to close the gap between ATC and ATFCM, Short-Term ATFCM Measures (STAM) shall be developed requiring dynamic coordination between more than one ACC, the AOs and NM. The objective of STAMs is to prevent sector overloading, whilst reducing delays, by using air traffic flow management techniques, close and during real time operations.

Even if some STAMs measures already exist, they are often limited to solving specific local problems and they do not consider the Network. No standardized tool or procedures exist today to manage STAMs and the role of NM within STAMs processes must be clarified.

The awareness on flight progress shall be improved by getting additional sources of flight data from the Aircraft Operators and the service providers, and by sharing the consolidate information with the partners.

3.3. NOP INFORMATION SERVICES

The NOP aims at building a consolidated interactive view of the network situation that incorporates the existing information and user requests on traffic demand and capacity plans, identifying bottlenecks and presenting the ATFCM and ASM measures foreseen to counterbalance them.

The NOP will result from the integration of interdependent data including flight intentions, status of airspace, capacity, airport data and meteorological forecasts. NOP will also be updated taking into account the actual traffic situation and real time flow and capacity management.

3.4. OPERATIONS IMPROVEMENTS

This Programme includes any Correction and Tuning done to the NM operational systems or services.

- **Domains improvements**

Each Release delivers Corrections and Tuning for the NM Domains:

- ATFCM Domain.
- Flight Planning Domain.
- Airspace Data Domain.

- **Call-Sign Similarities (CSST)**

Air-Ground communication, including call sign similarity/confusion, is one of the largest contributors to ATM safety events and remains a key priority. Reliable mitigation for the risk imposed by similar call signs (such as 527F 527D or 361M 369M) can be achieved by addressing the call sign allocation process within airlines.

The NM has established a Call Sign Management Cell (CSMC) to develop a centralized Service aiming at pan-European CSS solutions.

One key element in providing the Service is the publication of agreed Call Sign Similarity Rules. These Rules are at the heart of the Call Sign Similarity Tool (CSS Tool).

The CSMC has also established procedures with participating aircraft operators and ANSP's to monitor the operational effectiveness of the CSS Service and Tool.

Development of the CSS Tool and its specifications by EUROCONTROL is closely coordinated with a Call Sign Similarity User Group (CSSUG), which includes representations from AOs, ANSPs and other aviation organizations (e.g. ICAO and IATA).

- **Transponder Code Function (CCAMS)**

In accordance with the Network Manager mandate for the Transponder Code Function (TCF), CCAMS is operated on behalf of states as one of the possible technological solutions supporting the unambiguous and continuous identification of aircraft.

The final goal is to have the use of the downlinked aircraft identification (e.g. through Mode S) operational in the whole area with CCAMS as a back-up technology. Therefore CCAMS is implemented currently in 16 states and the number of users is expected to increase in the coming years.

3.5. PERFORMANCE PROGRAMME

The ATFM, Network Manager and Performance IRs stress the need for monitoring and reporting (M&R) of performance. The aim of this Programme is to provide the data and reporting (including datawarehouse and NMIR) that address the M&R needs.

The Programme includes a wide variety of activities such as: the adaptation of algorithms or databases, creation of new data sets, modification of interfaces graphical identity, and new reports

following users' requests. The changes allow the NM to fulfil its commitment on M&R and to support other stakeholders with their M&R responsibilities.

3.6. AIRPORT AND TMA NETWORK INTEGRATION

The programme aims at facilitating the better integration of airports and its operations with the ATM network. This includes the following areas:

- Connection of A-CDM and Advanced Tower airports to the NM systems.
- Provision of pre-tactical and tactical information to the main NM stakeholders (Airport Operators, Airspace Users and ANSPs) through the NOP portal and future web services.
- Provision of web service based tools for post-operational performance assessment to airports.
- Contribution to events management processes and information provision as to enhance the operational picture through the before-mentioned means.
- Development of new services related to deliverables becoming mature from SESAR research activities (AOP/NOP integration, APOC etc.)

4. DEPLOYMENT

Deployment Plan	2016												2017											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Release NM20.0																								
Presentation of NM20.0 to externals	20																							
OPT		■	■																					
Start of migration				05																				
Release NM20.5																								
Presentation of NM20.5 to externals											20													
OPT								29	■	■														
Start of migration										18:15														

4.1. NM20.0 MIGRATION

The migration of NM systems from NM19.5 to NM20.0 took place from the 5th of April 2016 to the 12th of April 2016.

4.1.1. Presentation of NM20.0 to externals

An audio conference presenting the NM20.0 Release took place on the 20th of January 2016 afternoon.

Slides and recording of the presentation may be retrieved at:

<http://www.eurocontrol.int/sites/default/files/publication/files/20160120-presentation-nm-20.0-externals.pdf>

4.1.2. NM20.0 OPT session

NM20.0 OPT session took place from the 15/02/2016 to the 11/03/2016.

4.1.3. NM20.0 migration plan

The migration of NM systems from NM19.5 to NM20.0 took place from the 5th of April 2016 to the 12th of April 2016.

4.2. NOP INCREMENT NM20.0.1 MIGRATION

~~NM20.0.1 is not a NM Release but a NM NOP Increment. Changes brought by a NOP Increment do not impact the Back-End systems (ETFMS, IFPS, etc.) neither the CHMI.~~

~~No new version of the CHMI will be delivered with NM20.0.1.~~

~~There is no OPT (Operational Testing) organised for a NOP Increment.~~

~~The migration of the NOP Portal to NM20.0.1 is planned on the 14th of June 2016.~~

~~The migration of the NOP Portal to NM20.0.1 is planned to take place in the same timeframe than the migration of NM20.5. This will be confirmed in a next version of the NM Release Notes.~~

~~The NOP Portal (Public and Protected) will be unavailable during the migration.~~

~~NM B2B services will remain available during the NM20.0.1 migration.~~

The only CR of NM20.0.1 impacting externals (CR_037419 - Display TOBT / TSAT / TT in the protected NOP Portal flight list) initially planned in NM20.0.1 will be delivered in NM20.5. So NM20.0.1 will have no impact for external users.

4.3. NM20.5 MIGRATION

4.3.1. Presentation of NM20.5 to externals

An audio conference presenting the NM20.5 Release took place on the 20th of September 2016. Slides and recording are available at:

<http://www.eurocontrol.int/sites/default/files/publication/files/20160920%20-presentation-nm20.5-externals-updated-2609.pdf>

4.3.2. NM20.5 OPT session

The overall objectives of an OPT (Operational Testing) session are to:

- Demonstrate the new software functionality;
- Enable the new functionality to be tested against client systems;
- Enable knowledge to be gained of new procedures;
- Enable familiarisation of client staff and NM staff with the new functionality.

During the OPT session, users will be able to test the new CHMI, the new NOP Portal and some other features (mentioned in the "Users' validation" field of each Functional Block).

The OPT session is planned to take place from the 08/09/2016 to the ~~12/10/2016~~ 04/11/2016 (included).

OPT Instructions are available at: <http://www.eurocontrol.int/node/9186>

Any question related to the OPT session shall be sent to nm.opt@eurocontrol.int.

4.3.3. NM20.5 migration plan

The migration of NM systems from NM20.0 to NM20.5 is planned to start on the ~~18 October 2016~~ 15 November 2016 and last around one week.

~~In case of business or technical issue, the NM20.5 migration could be postponed to the 15 November 2016. NM Release Notes would be updated accordingly.~~

Software / Service (Times are UTC)	Unavailable from	To	Remark	Business impact during migration
CHMI software	CHMI software and documentation available: - For OPT (Operational Tests) users: - For non NM-managed PC: Instructions to download the software are available at: http://www.nm.eurocontrol.int/chmi_appsoft/CHMI/12.5.4/chmiaoinst12.5.4.pdf - For NM-managed PC: Software has been pushed to Managed PCs between the 01/09/2016 and the 06/09/2016 07/09/2016 . - For OPS (Operations) users: - For non NM-managed PC: Software is available but not activated (see below): http://www.nm.eurocontrol.int/chmi_appsoft/CHMI/12.5.4/chmiaoinst12.5.4.pdf - For NM-managed PC: Software will be pushed on the PCs between the 01/09/2016 and the 18/10/2016 10/11/2016 but not activated (see below).			
ATFCM CHMI activation except CIAM	15/11/2016 22:00	16/11/2016 00:01	Expected downtime 1h30 + 1h30 provision in case of rollback	No access to NM services via CHMI
CIAM AMC activation	22/11/2016 16:30	22/11/2016 20:00	-	No access to NM services for CHMI AMC positions (using CIAM)
NOP Portal (CPA) unavailability	15/11/2016 22:00	16/11/2016 00:01	Expected downtime 1h30 + 1h30 provision in case of rollback	No access to NOP Portal (Public and Protected)
NMIR (former CIR) access (BIS system) unavailability	16/11/2016 00:00	16/11/2016 07:00	NMIR will also be unavailable during the DWH (datawarehouse) migration (see below)	No access to the NM Interactive Reporting (NMIR)
IFPUV unavailability	21/11/2016 22:00	22/11/2016 00:01	Expected downtime 1H00 + 1H00 provision in case of rollback	No Flight Plan validation service via all channels including CHMI, NOP Portal and B2B Web Services
SAFA Service (FAAS system) unavailability	21/11/2016 22:00	22/11/2016 00:01	Expected downtime 1H00 + 1H00 provision in case of rollback	No SAFA service during this time period
CSST service unavailability	16/11/2016 07:00	16/11/2016 09:00	-	No CSST service during this time period

System (Times are UTC)	Unavailable from	To	Remark	Business impact
ATFCM services				
ETFMS, PREDICT, CUA	15/11/2016 22:00	16/11/2016 00:01	Expected downtime 1h30 + 1h30 provision in case of rollback	No Flow Management Services available via all channels including CHMI, NOP Portal and B2B Web Services
DWH (Datawarehouse)	16/11/2016 00:00	16/11/2016 07:00	-	No Query/Replay in CHMI, no NMIR
Flight Plan services				
IFPS	21/11/2016 22:00	22/11/2016 00:01	Expected downtime 1H00 + 1H00 provision in case of rollback	No Flight Plan filing services via all channels including CHMI, NOP Portal and B2B Web Services
Update of Environmental data				
ENV/CACD	22/11/2016 16 :30	22/11/2016 20 :00	-	No access to CIAM

NM B2B services (Times are UTC)

Important note: As the NM B2B services use the NM Back-End systems, NM B2B services will be disrupted during the migration of these systems. In particular, Flight Services will not be available during IFPUV migration (c.f. above).

NM20.5 documentation, wsdl and xsd files

The NM20.5 documentation (including wsdl and xsd files) ~~will be~~ is available on the NM B2B services OneSky Team website <https://ost.eurocontrol.int/sites/B2BWS> (Registration required. For any information: NM.servicerequests@eurocontrol.int). An announcement for the documentation availability ~~has been~~ will be done on the website.

Platform		Before the 15/11/2016 22:00	Migration to NM20.5 From 15/11/2016 22:00 To 16/11/2016 00:01 Expected downtime 1h30 + 1h30 provision in case of rollback	After the 16/11/2016 00:01
Pre-ops	NM18.5	Available	Not available	Not available
	NM19.x and NM20.0 (except NM19.0.1, no longer available)	Available	Not available	Available
	NM20.5	Available since the 06/10/2016	Not available	Available
Ops	NM18.5	Available	Not available	Not available
	NM19.x and NM20.0	Available	Not available	Available
	NM20.5	Not available	Not available	Available

- “Expected downtime x hours + y hours provision in case of rollback” means that the system or service will be unavailable minimum x hours and maximum up to (x + y) hours if a rollback to the previous version is required.

5. NETWORK MANAGER EVOLUTIONS

5.1. INTRODUCTION

Each Functional Block is described in a table with the following fields. All descriptions are focused from an external NM point of view.

FBxxx: Number and name of the Functional Block	
(optional) Internal NM	
<p>“Internal NM” means that the Functional Block has no direct impact for external NM users (on procedures, interfaces or systems). The Functional Block may have an indirect impact by improving the quality of the service delivered by NM.</p>	
Users impacted	<p>The categories of NM Users which are impacted by the new features of the Functional Block:</p> <ul style="list-style-type: none"> U1. Flow Manager (FMP) U2. Airspace Manager (AMC) U3. Airspace User (Civil) U4. Airspace User (Military) U5. ENV data provider U6. Management (eg crisis management, performance management) U7. Post-ops analyst U8. AO or CFSP U9. CAA, EASA U10. Non-CDM Airport U13. CDM-Airport U11. ARO U12. Internal NM U14. Air Navigation Service Provider (ANSP) U0. Other (specify):
Application impacted	<p>The NM application(s) or service(s) that will be impacted by the Functional Block:</p> <ul style="list-style-type: none"> A1. CHMI A2. CIFLO, CIAO A3. CIAM A4. CACD A5. Flow management systems (Predict, ETFMS) A6. FPL (IFPS) A7. Datawarehouse (NMIR) A8. CCAMS A9. CSST A10. NOP Portal A11. NOP B2B A12. ASM Tools A13. NMVP A14. n-CONNECT A0. Others (specify):
Objective	Operational objectives of the Functional Block.

Description	Description of the main features delivered to external NM users. Some FBs (mostly the ones belonging to “Operations Improvements” Programme) may content the CR (Change Request) number of the new features (like CR_XXXXXX). Please refer to this CR number when requesting information to NMD.
Impact for external users	Technical or operational impact the Functional Block may have on the external users. I0. No impact. I1. Impact on procedures. I2. Impact on Man-Machine interface. I3. Impact on clients’ systems.
Impact description	Description of the impact for the external users.
Service reference	Hyperlink toward the NM activity(ies), service(s) and product(s) that will be impacted by this Functional Block. The global catalogue is available at the following address: http://www.eurocontrol.int/nm-services-catalogue
Safety assessment	Output of the <u>initial</u> safety assessment carried out by NMD for the Functional Block: S4. Safety assessment to be performed or on-going S5. FB is not Safety related S6. FB is Safety related S7. Bug fixing (I2)
Operational deployment plan	The way the Functional Block will be deployed: D1. FB will be deployed in Operation along with the release migration. FBs deployed as D1 normally do not include new or changed ATFCM procedures. D2. FB will be subject to a Pilot Phase (Operational Trial) followed by a Go/NoGo decision for ops deployment after Release Migration. New ATFCM procedures or changed ATFCM procedures are normally only issued as a result of D2 deployment. These are issued via Ops Instructions after the consultation process agreed with ODSG. D3. FB will be subject to R&D ops validation (e.g. SESAR). D4. The analysis part of the FB will be done in the Release and the development will be candidate for the next Release.
Users’ validation	Depending on the Operational deployment plan: <ul style="list-style-type: none"> • If D1: Is an OPT planned for this FB? • If D2 or D3: provide additional information on the activities that will take place (pilot phase, ops validation phase, etc.)
Documentation publication	The documentations that will be updated following the deployment of the Functional Block.
Training sessions	Training sessions, i.e. the training dates, and the related links for access.

5.2. RELEASE NM20.0

5.2.1. Airspace Management and Advanced FUA

FB700 - New ASM AUP template Phase 2	
Users impacted	U3. Airspace User (Civil) U4. Airspace User (Military) U7. Post-ops analyst U8. AO or CFSP U12. Internal NM U14. Air Navigation Service Provider (ANSP)
Application impacted	A3. CIAM A4. CACD A7. Datawarehouse (NMIR) A10. NOP Portal A12. ASM Tools
Objective	<p>This FB will deliver three new features:</p> <p>CR_037137 - New AUP/UUP Template The current AUP content provides the possibility to process automatically information used for civil/military airspace coordination and provides notifications to AOs and CFSPs. The AUP has been identified as the most suitable means of notification due to the possibility of processing the information automatically via B2B service. NETOPS/07 endorsed the new AUP/UUP template, which now aims to provide to the users additional airspace information useful for flight plan purposes. The changes introduced with the NM20.0 refer to the capability to manage ad hoc areas and associated restrictions via AUP/UUP.</p> <p>CR_039407 - ASM Booklet NM IR ASM Booklet has been requested by the AOs and CFSPs since the paper version of the booklet has been stopped one year ago. The first version of the booklet has been released in NM19.5 and, following the feedback and input from our stakeholders, the version 2 is scheduled for NM 20.0.</p> <p>CR_039408 - FUA KPIs developments ASM KPIs monitoring is a legal requirement for the Member States coming from the Performance Scheme implementing rule. The update scheduled for NM 20.0 will fine-tune the algorithm to calculate the ASM KPIs.</p>
Description	<p>CR_037137 - New AUP/UUP Template The changes introduced in the new AUP/UUP template will focus initially on the following:</p> <ul style="list-style-type: none"> • Ad hoc areas. • EU restrictions. <p>The new AUP/UUP template is described in the ERNIP part 3 ASM Handbook.</p> <p>CR_039407 - ASM Booklet The version 2 of the ASM Booklet will contain new information: FUA restrictions in the RSA chapter, the list with the public holidays, new column named bi-directional for CDRs chapter.</p> <p>CR_039408 - FUA KPIs developments The ASM KPIs algorithms have to be updated in order to address the calculation granularity at CDR and Country level, bi-directional CDRs, consecutive CDRs on different IDs routes, alternate trajectories for RSAs and dealing with the values of more than 100% for some KPIs.</p> <p>Improved calculation and reporting of the FUA performance indicators:</p> <ul style="list-style-type: none"> • Performance Indicators (PIs) calculated at CDR (currently per CDR segment only), Country and FIR level; • bi-directional CDRs addressed separately;

	<ul style="list-style-type: none"> consecutive CDRs on different route IDs shall be considered; new report on the final day picture based on the AUP/UUP for that day; improved algorithm for calculating alternate trajectories for RSAs based on the ECAC entry/exit point for the flights from/to outside ECAC; Improved ALTN algorithm considering level 3 points and/or DEP/DEST airports (or ECAC boundary points); Support RAU (Rate of Actual Use of CDR or reserved/restricted airspace) values >100%: option to cap at 100% or discard; RoCA (Rate of CDR Availability) defined only during day or night ensured to be 100% when the activation matches the definition.
Impact for external users	I3. Impact on clients' systems.
Impact description	Capability of clients' systems to insert ad hoc areas into their local databases.
Service reference	ID A221 - Airspace Management (ASM) Processes ID P3410 - NM B2B ID P3411 - Data distribution ID S334 - Airspace Data Management ID S323 - Flight Plan pre-validation ID S325 - Flight Plan Processing and Distribution ID P348 - Network Operations Portal
Safety assessment	S6. FB is Safety related.
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB will be included in the NM20.0 OPT session.
Documentation publication	FUA - AMC/CADF Operations Manual: Available at https://ost.eurocontrol.int/sites/ASM-SG/Shared%20Documents/CADF%20-%20AMC%20Operational%20Documents/AMC-CADF%20Operations%20Manual/FUA%20AMC%20CADF%20Operations%20Manual%208.0.pdf
Training sessions	None

FB725 - Dynamic creation and update of ad-hoc airspaces

Users impacted	U1. Flow Manager (FMP) U2. Airspace Manager (AMC) U3. Airspace User (Civil) U4. Airspace User (Military) U5. ENV data provider U7. Post-ops analyst U8. AO or CFSP U12. Internal NM U14. Air Navigation Service Provider (ANSP)
Application impacted	A3. CIAM A4. CACD A6. FPL (IFPS) A7. Datawarehouse (NMIR)

	A10. NOP Portal A11. NOP B2B A12. ASM Tools
Objective	Improve the management of ad hoc airspace structures
Description	The implementation of ad hoc areas based on short term notification (e.g. NOTAM) will improve the notification process and will allow a better management of airspace
Impact for external users	I2. Impact on Man-Machine interface. I3. Impact on clients' systems.
Impact description	Local ASM tools shall be able to process ad hoc airspace structures via AUP/UUP. Airspace users and CFSPs systems shall be able to process via B2B information of ad hoc airspace structures notified via AUP/UUP
Service reference	ID A121 - Network Operations Monitoring ID A221 - Airspace Management (ASM) Processes ID P3410 - NM B2B ID P3411 - Data distribution ID P348 - Network Operations Portal ID P349 - CHMI (Collaboration Human Machine Interface) Applications ID S323 - Flight Plan pre-validation ID S325 - Flight Plan Processing and Distribution ID S334 - Airspace Data Management
Safety assessment	S6. FB is Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB will not be part of the NM20.0 OPT session.
Documentation publication	Network Operations HANDBOOK: <ul style="list-style-type: none"> • IFPS Users Manual • IFPS Users Manual (annex) Generated errors • NM Operational Problem reporting • Provision of Environment Data • FUA - AMC/CADF Operations Manual User Manuals: <ul style="list-style-type: none"> • CHMI ASM Function Reference Guide • CHMI ATFCM Reference Guide • CHMI ATFCM Map Reference Guide • Addendum to ATFCM CHMI & MAP Reference Guides • NOP Portal Users Guide • Re-Routing Opportunities - Information for Airspace Users (CHMI Version) • Re-Routing Opportunities - Information for Airspace Users (NOP Version)
Training sessions	None

5.2.2. Cooperative Traffic Management

FB762 - Move from CTOT to TTO	
Users impacted	U1. Flow Manager (FMP) U3. Airspace User (Civil) U4. Airspace User (Military) U7. Post-ops analyst U8. AO or CFSP U10. Non-CDM Airport

	<p>U11. ARO U13. CDM-Airport U12. Internal NM U14. Air Navigation Service Provider (ANSP)</p>
Application impacted	<p>A1. CHMI A2. CIFLO, CIAO A5. Flow management systems (Predict, ETFMS) A7. Datawarehouse (NMIR) A10. NOP Portal A11. NOP B2B A13. NMVP</p>
Objective	<p>In addition to publishing the CTOT in the SAM/SRM messages, the objective is for NM to also publish the Target Time, Fix and Level corresponding to the hot spot location.</p>
Description	<ul style="list-style-type: none"> • Dissemination of target times via AFTN (SAM/SRM). • Target time information (including deviation info) for most-penalizing regulation added in CHMI and NOP Portal flight data display. • Target time information (including deviation info) for all regulations added in DWH. <p>The definition of the TTO field is: <code>tto = '-' "TTO" (adid ptid) to [fl]</code> <code>fl</code> is only present for a point, not for an aerodrome. where <code>adid</code>, <code>ptid</code>, <code>to</code> and <code>fl</code> are the subfields as defined in the current ADEXP specification (http://www.eurocontrol.int/sites/default/files/publication/files/20111001-adexp-spec-v3.1.pdf)</p> <p>Here are two examples of the SAM/SRM changes:</p> <ul style="list-style-type: none"> • SAM/SRM format change for a TTO on point (in bold the new fields): <code>-CTOT 1526</code> <code>-REGUL Y3EH12A [-> first regulation in the list = most penalizing]</code> <code>-REGUL EGLL12</code> <code>-TTO -PTID REMBA -TO 1559 -FL F350</code> <code>-TAXITIME 0014</code> <code>[...]</code> • SAM/SRM format change for a TTO on aerodrome (in bold the new fields): <code>-CTOT 1526</code> <code>-REGUL Y3EH12A [-> first regulation in the list = most penalizing]</code> <code>-REGUL EGLL12</code> <code>-TTO -ADID EGLL -TO 1526</code> <code>-TAXITIME 0014</code> <code>[..]</code> <p>Please note that when TTO_Fix equals ADEP, TTO equals CTOT. Target Time information is published by NM for awareness purposes only. There are no changes to current procedures, except for those participating in iStream flight trials. The FB has no direct operational impact. Please note that there is only one TTO in SAM or SRM message.</p>
Impact for external users	<p>I3. Impact on clients' systems.</p>
Impact description	<p>The FB has no direct operational impact as the Target Times are only published for awareness purposes. The FB may have technical impact: Target Times will be included in the SAM/SRM</p>

	messages. Given ADEXP message protocols the impact on client systems is expected minimal.
Service reference	ID P3410 - NM B2B ID P3411 - Data distribution ID P348 - Network Operations Portal ID P349 - CHMI (Collaboration Human Machine Interface) Applications
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB will be included in the NM20.0 OPT session.
Documentation publication	<ul style="list-style-type: none"> • ATFCM Users Manual • ATFCM Operating Procedures for FMP • ATFCM Operations Manual • CHMI ATFCM Reference Guide • DPI Implementation Guide • Flight Progress Messages Document • NMIR (CIR) Users' Guide • NOP Portal Users Guide
Training sessions	Not applicable

5.2.3. NOP Information Services

FB644 - AIM/ANM publication (via AFTN and SITA Type B) phase out

Users impacted	U0. Other (specify): All NM users that receive the ANM (136 users) and AIM (501 users) via AFTN and SITA Type B are impacted by this FB.
Application impacted	None
Objective	Enable evolution of the NM information sharing, both in terms of the capability of conveying information and in the capability of reaching all users. Removing outdated technologies and their associated constraints (e.g. AFTN character set).
Description	<ul style="list-style-type: none"> • Stop using AFTN and SITA Type B in the publication of ANM (publication continues to be done via CHMI, NOP Portal, and B2B services). • Stop using AFTN and SITA Type B in the publication of AIM in <u>normal</u> conditions (publication continues to be done via eMail, CHMI, NOP Portal, and B2B services). • Continue to use AFTN and SITA Type B in the publication of AIM in <u>contingency</u> conditions. • Introduce publication of contingency information by Web means
Impact for external users	I1. Impact on procedures. I3. Impact on clients' systems.
Impact description	<ul style="list-style-type: none"> • On procedures: rely on information from the NM applications instead of the messages received via AFTN and SITA. • On client systems: users having developed applications based on automatic feed from AFTN or SITA will need to migrate to B2B services to achieve the automation.
Service reference	ID S316 - Crisis & Contingency Management
Safety assessment	S5. FB is not Safety related
Operational	D1. FB will be deployed in Operation along with the release migration.

deployment plan	
Users' validation	<p>This FB was discussed by various fora: ODSG (November 2014, February 2015, June 2015), AOG (November 2014), NM User Forum (Jan 2014).</p> <p>AIM published ("AIM and ANM distribution via AFTN and SITA Type B - Service Closure") from the 1st of December 2014 till the 31st of January 2015.</p> <p>No opposition was raised from airlines and the change subject of this FB was finally approved by ODSG 34 (June 2015).</p> <p>The FB will be included in the NM20.0 OPT session.</p>
Documentation publication	<ul style="list-style-type: none"> • ATFCM Users Manual • ATFCM Operating Procedures for FMP • ATFCM Operations Manual
Training sessions	Not applicable

FB782 - Network Events Tool Phase 5b

Users impacted	<p>U1. Flow Manager (FMP) U3. Airspace User (Civil) U4. Airspace User (Military) U10. Non-CDM Airport U13. CDM-Airport U12. Internal NM U14. Air Navigation Service Provider (ANSP) U0. Other (specify): Users of the Network Events Tool</p>
Application impacted	A10. NOP Portal
Objective	Further development of the Network Events application, addressing usability improvements (e.g. Calendar view, printing capability) and new functionalities (e.g. additional notifications).
Description	<p>CR_040011 - Locations</p> <ul style="list-style-type: none"> • The application will provide a maintainable list of AXES with their associated ACCs. • The application will allow selection of AXES as possible event locations <p>CR_040015 - Improvements to Notifications</p> <ul style="list-style-type: none"> • The email message reports (generated following a subscription) will include hyperlinks to Events. • The daily notification report will include a separate category of events with those terminating at D+1 (tomorrow). • The report on duplicates will include for each event (also for the potential duplicates): the Event type, the name, the period and the location. • The daily and monthly notification reports will include information about event subtype and status of event for all events listed. • The daily and monthly notification reports will include the text "no input" when fields are empty (e.g. 'Network impact', 'Publications', 'Measures and Scenarios') • A new Report will automatically list AIRAC scheduled events from the past two effective dates. • A new Report will automatically list AIRAC scheduled events for the next two AIRAC effective dates. <p>CR_040016 - Notifications / Subscriptions</p> <p>The notifications will include three new options:</p> <ul style="list-style-type: none"> • Events terminating at D+1 (tomorrow); to be generated in Daily report • Event scheduled events at past two AIRAC cycles

	<ul style="list-style-type: none"> Event scheduled events at next two AIRAC cycles
Impact for external users	I1. Impact on procedures. I2. Impact on Man-Machine interface.
Impact description	Interface of the application will be modified to accommodate the new features. This may have an impact on users' procedures.
Service reference	ID P348 - Network Operations Portal
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB is part of the NM20.0 OPT session.
Documentation publication	NOP Portal Users guide will be updated.
Training sessions	No dedicated training.

TB245: FPL distribution via B2B Publish/Subscribe	
Users impacted	U1. Flow Manager (FMP) U3. Airspace User (Civil) U4. Airspace User (Military) U8. AO or CFSP U10. Non-CDM Airport U13. CDM-Airport U11. ARO U14. Air Navigation Service Provider (ANSP) U0. Other (specify): Any B2B user
Application impacted	A11. NOP B2B
Objective	Provide flight plan data via B2B Publish / Subscribe
Description	This TB was started with NM19.5. With this TB, NM will publish flight plan data via B2B Publish/Subscribe using the NM B2B structured format used already for existing Request/Reply services. The feature will be available on the OPS platform. After NM20.0 migration, the access to this feature will be allowed on a case-by-case basis following a request to NM (eMail to NM.servicerequests@eurocontrol.int).
Impact for external users	I0. No impact.
Impact description	Current FPL distribution via AFTN as well as FPL access via NM B2B Request/Reply will continue after NM20.0: this TB is providing users with an additional (and convenient) way to getting FPL data.
Service reference	ID P3410 - NM B2B
Safety assessment	S6. FB is Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	This TB will not be part of the NM20.0 OPT session.

	The TB245 will be available on the NM B2B PRE-OPS platform for user testing.
Documentation publication	NM B2B Web Services documentation will be updated accordingly.
Training sessions	None

5.2.4. Operations Improvements

FB733 is back in the NM Release Notes with one CR impacting externals.

FB734 is back in the Release Notes as it contains changes that may impact some externals.

FB733: FPL Domain improvements	
Users impacted	U10. Non-CDM Airport U13. CDM-Airport U11. ARO U14. Air Navigation Service Provider (ANSP)
Application impacted	A6. FPL (IFPS)
Objective	CR_040539 - Change IFPS parameters ATC Units have complained that the message grouping functionality of IFPS causes flight plan messages to be distributed at the wrong times. IFPS shall be updated to fix this issue.
Description	CR_040539 - Change IFPS parameters IFPS TRANSMIT_WINDOW parameter changed from 60 minutes to 0 minutes.
Impact for external users	I3. Impact on clients' systems.
Impact description	All flight plan messages will be distributed via AFTN/SITA at the time defined by the when_FPM_needed parameter set for each Air Navigation Unit. This may have an impact the way users' systems process the messages.
Service reference	<u>ID P3411 - Data distribution</u> <u>ID S325 - Flight Plan Processing and Distribution</u>
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB will be included into the NM20.0 OPT session.
Documentation publication	IFPS Users Manual
Training sessions	None

FB734: Airspace Data Domain improvements

Users impacted	U1. Flow Manager (FMP) U12. Internal NM U14. Air Navigation Service Provider (ANSP)
Application impacted	A4. CACD
Objective	This FB will improve the Airspace Data Domain operations in two specific tasks:

	<ul style="list-style-type: none"> • CR_039042: Reduce time in preparation of ENV Tapes. • CR_036442: Restrictions Live Update Traceability.
Description	<p>CR_039042 - Reduce time in preparation of ENV Tapes (60 in 2015) Due to the amount of Pre-validation tapes requests (60 in 2015 and still growing), Airspace Data domain operational resources spent on preparing ENV Tapes will be reduced, thanks to software optimizations (locking mechanism).</p> <p>CR_036442: Restrictions Live Update Traceability This CR will increase the precision and efficiency of corrections regarding restrictions. It will help Airspace Data Domain Operational resources:</p> <ul style="list-style-type: none"> • to understand the need / changes for Live Updates, • to identify on why / who requested / changed restriction On-Line.
Impact for external users	I0. No impact.
Impact description	<p>This FB will have beneficial impacts for external stakeholders:</p> <ul style="list-style-type: none"> • Increase of quality when correcting Restrictions on-line. • Gives more flexibility in pre-validations planning.
Service reference	<u>ID S334 - Airspace Data Management</u>
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	This FB will not be included into the NM OPT session.
Documentation publication	None.
Training sessions	None.

FB735: ATFCM Domain improvements

Users impacted	U1. Flow Manager (FMP) U7. Post-ops analyst U12. Internal NM
Application impacted	A5. Flow management systems (Predict, ETFMS) A10. NOP Portal A11. NOP B2B
Objective	<p>ODSG requested the Delay Task Force to review proposals for new guidance material for Regulation Reason and ANM remarks usage and report back to ODSG in February 2014.</p> <p>The Task Force agreed with the proposal to delete "De-icing" as a regulation reason and to add "De-icing" to the ANM remark of the new "Aerodrome services" regulation reason. The Task force agreed also to delete the "Equipment non ATC" reason and to add "Equipment non ATC" to the ANM remark of the new "Aerodrome services" regulation reason.</p>
Description	"Aerodrome Services" shall be the new regulation reason that replaces "De-icing" and "Equipment non-ATC".
Impact for external users	I2. Impact on Man-Machine interface.

Impact description	CHMI, NOP Portal and NOP B2B interfaces will not present “De-icing” and “Equipment non-ATC” as a possible regulation reasons. CHMI, NOP Portal and NOP B2B interfaces will present “Aerodrome Services” as a new regulation reason.
Service reference	ID P3410 - NM B2B ID P348 - Network Operations Portal ID P349 - CHMI (Collaboration Human Machine Interface) Applications ID S315 - Load and capacity management
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB will be part of the NM20.0 OPT session.
Documentation publication	ATFCM Users Manual ATFCM Operations Manual
Training sessions	None

FB741: Flight status/situation via publish/subscribe

Users impacted	U1. Flow Manager (FMP) U3. Airspace User (Civil) U4. Airspace User (Military) U8. AO or CFSP U10. Non-CDM Airport U11. ARO U13. CDM-Airport U14. Air Navigation Service Provider (ANSP)
Application impacted	A5. Flow management systems (Predict, ETFMS) A6. FPL (IFPS) A11. NOP B2B A14. n-CONNECT
Objective	FB741 will allow flight update information via B2B Web Services Publish/Subscribe, in line with the SWIM infrastructure. The aim is to increase the interoperability required in the future ATM systems.
Description	FB741 will allow flight update information via B2B Publish Subscribe Services. It creates a new B2B P/S Subscription Topic for flight updates. Once a customer has subscribed to this topic, the FB741 enables the user to receive an update each time there is an update in IFPS/ETFMS.
Impact for external users	I3. Impact on clients' systems.
Impact description	External users will have to modify their systems in order to be able to subscribe to this new Publish/Subscribe topic and make use of the information sent by NM.
Service reference	ID P3410 - NM B2B ID P3411 - Data distribution ID S315 - Load and capacity management
Safety assessment	S6. FB is Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB741 will be available on the NM B2B PRE-OPS platform for user testing.

Documentation publication	NOP/B2B Reference Manuals
Training sessions	None
FB756: NM B2B improvements	
Users impacted	U1. Flow Manager (FMP) U2. Airspace Manager (AMC) U3. Airspace User (Civil) U4. Airspace User (Military) U8. AO or CFSP U10. Non-CDM Airport U13. CDM-Airport U11. ARO U14. Air Navigation Service Provider (ANSP) U0. Other (specify): Any NM B2B Web Services users
Application impacted	A4. CACD A5. Flow management systems (Predict, ETFMS) A6. FPL (IFPS) A11. NOP B2B
Objective	Improve NM B2B Web Services as requested by the Users
Description	CR_039813 (Provide default taxi times in an NM B2B Web Service) This CR will allow for flight plan filers to use the same taxi time in their profile calculation as is used in IFPS: the IFPS default taxi times will be made available via a NM B2B Web Service. CR_039815 (Allow flight list multi aircraft retrieval) The current NM B2B flight list query only allows single ID which has some limitations: <ul style="list-style-type: none"> • Multiple requests have to be sent • Risk of reaching the defined limit • Creates potential load issues on the NM OPS Systems. This change will deliver flight list multi aircraft retrieval. CR_039934 (Add flight plan status to the FPLs returned by queryFlightPlans) The flight plan status will be added to the list of valid flight plans in the FlightPlanListReply
Impact for external users	I3. Impact on clients' systems.
Impact description	Users wanted to make use of the new features will have to adapt their systems.
Service reference	<u>ID P3410 - NM B2B</u>
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB756 will be available on the NM B2B PRE-OPS platform for user testing.
Documentation publication	NM B2B Reference manuals
Training sessions	None.

FB792: Improve EFD Accuracy	
Users impacted	U1. Flow Manager (FMP) U3. Airspace User (Civil)
Application impacted	A0. Others (specify): EFD distribution
Objective	Improve EFD profile accuracy by reducing the time deviation and the vertical / lateral deviation window.
Description	EFD distribution is used for short term planning in STAM and XMAN. The accuracy of the 4D profile calculation is not sufficient for the operational expectation: the granularity of the occupancy counts is 1 minute, while the time deviation parameter to trigger an EFD update is 5 minutes. The FB will improve the EFD profile accuracy by reducing the time deviation window (possibly from 5 minutes to 1 minute) and by reducing the vertical and lateral deviation window. The FB will improve the profile calculation by using the measured aircraft speed to extrapolate to the remaining part of the route (replace pure shift by "kind of" extrapolation)
Impact for external users	I0. No impact.
Impact description	-
Service reference	<u>ID P3411 - Data distribution</u>
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB will not be part of the NM20.0 OPT.
Documentation publication	The "Flight Progress Messages" document will be updated.
Training sessions	None.

5.2.5. Performance Programme

FB703: Performance Work Programme	
Users impacted	U7. Post-ops analyst U12. Internal NM U0: EFD users
Application impacted	A5. Flow management systems (Predict, ETFMS) A7. Datawarehouse (NMIR) A11. NOP B2B
Objective	The aim of the FB is to enable analysis and reporting of NM ATFCM performance to EC in the context of RP2 Performance requirements associated to Regulations 390/2013 and 255/2010.
Description	CR_039132 - OVD Reporting Flight intruder information on CHMI and NOP Portal will be enhanced: the current "I" column will indicate the nature of the intrusion: <ul style="list-style-type: none"> • "H" for a horizontal deviation,

- “V” for a vertical deviation,
- “M” (mixed) for a horizontal and vertical deviation.

This information will also be available via NM B2B.

CR_039134 - FE data for KPI improvement

In support to NM network performance monitoring, four new fields (calculated for the complete profile) will be added to the EFD messages containing:

- Flying time: ADEXP title “PRF1”.
- Route length: ADEXP title “PRF2”.
- Route charges: ADEXP title “PRF3”.
- Fuel consumption: ADEXP title “PRF4”.

Fields names have been changed to avoid any misinterpretation.

These fields will enhance the FE analysis (to understand the reasons for changes to the filed route).

Example of the new fields as they will appear in the EFDs (complete EFDs message samples are available on request at nm.releases@eurocontrol.int):

-PRF1 20721
-PRF2 3075
-PRF3 1483
-PRF4 32750

Impact for external users	CR_039132: I2. Impact on Man-Machine interface. CR_039134: I3. Impact on clients' systems.
Impact description	CR_039134: New fields in EFDs should be ignored automatically by systems processing EFDs (unless users want to take benefit of them).
Service reference	<u>ID A121 - Network Operations Monitoring</u> <u>ID P3411 - Data distribution</u>
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB will not be part of the NM Release OPT.
Documentation publication	The Flight Progress Messages Document will be updated.
Training sessions	None

FB750: REA Message – Delay calculation

Users impacted	U1. Flow Manager (FMP) U3. Airspace User (Civil) U6. Management (eg crisis management, performance management) U7. Post-ops analyst U8. AO or CFSP U10. Non-CDM Airport U13. CDM-Airport U11. ARO U12. Internal NM U14. Air Navigation Service Provider (ANSP)
Application impacted	A5. Flow management systems (Predict, ETFMS) A7. Datawarehouse (NMIR)
Objective	Correction of the ATFM delay calculation in the Scenarios where the current delay

	calculation method doesn't respect the philosophy adopted by the ODSG Delay Calculation Task Force
Description	<p>CR_038055: Implement "proven benefit" delay calculation changes. The ODSG Delay The en-route ATFM delay is the delay calculated by NM as defined in Commission Regulation (EU) No 255/2010 of 25 March 2010.</p> <p>It is expressed as the difference between "the take-off time requested by the aircraft operator" and the calculated take-off time allocated by ETFMS (CTOT).</p> <p>In June 2012, the ODSG Delay Calculation Task Force defined more precisely "the take-off time requested by the aircraft operator" and identified some scenarios in which the (current) delay calculation doesn't respect this definition.</p> <p>Scenarios where the current delay calculation method doesn't respect the philosophy adopted by the ODSG Delay Calculation Task Force are the following:</p> <ol style="list-style-type: none"> 1. REA message received with an earlier OBT and/or shorter taxi time: New ETOT = clock + minlineup < previous ETOT This allows CASA to allocate a slot with (possibly) CTOT < previous ETOT Problem: The "take-off time requested by the aircraft operator" is the previous ETOT (usually the EOBT from last flight plan message + standard taxi time). 2. T-DPI-s with TTOTs earlier than TTOTt (received from a previous T-DPI-t). This is a similar case to the one above with REA messages, but for CDM airports. 3. OBT changes by flow controllers: New ETOT = New OBT + taxi time DWH also computes and archives ATFM Delays. DWH ATFM Delay is exposed to: <ul style="list-style-type: none"> • NMIR: Flight and regulation reports include the delay. • CUA: (internal NM) DWH supports most of the ETFMS queries. <p>NM shall monitor the impact of the improvement on the ATFM delay and consequently on KPIs and statistics.</p> <p>Improvement made on the ATFM delay calculation is propagated from end to end. The benefit is to use a single, easy to maintain standard delay calculation.</p>
Impact for external users	I0. No impact.
Impact description	No impact for external users. KPIs on delay will be improved.
Service reference	ID A121 - Network Operations Monitoring
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB will be part of the NM20.0 Release OPT.
Documentation publication	None
Training sessions	None

5.2.6. Airport and TMA Network Integration

FB776 contains only internal changes related to ENV-CACD; it has been removed out of the NM Release Notes.

FB740 - Departure Planning Information provision via B2B	
Users impacted	U13. CDM-Airport U12. Internal NM U0. Other (specify): Advanced ATC TWR Airports

	Note that these users may start using these new services and are not (yet) obliged to provide DPI via B2B.
Application impacted	A5. Flow management systems (ETFMS) A11. NOP B2B
Objective	The implementation of this Functional Block will allow CDM airports and Advanced ATC TWR Airports to provide Departure Planning Information (DPI) messages to NMOC via B2B Web Services. Until now, the AFTN network has been the only available solution for establishing the communication between the Airport systems and the NMOC systems. However, web services are a more modern and more cost-effective way of exchanging data, based on internet technology, and could provide an incentive for more airports to connect to the network. The aim is to increase the interoperability required in the future ATM systems, in line with the SWIM infrastructure.
Description	CR_039243 - Sending DPI via NM B2B Web Service Through this CR, NM will provide a new B2B web service which will ensure that the NMOC systems will be prepared to accept and process the incoming DPI messages from a network-enabled A-CDM information sharing application. This airport CDM information sharing application is a prerequisite in order for a CDM airport or an advanced ATC TWR airport to be able to successfully provide DPI messages to NMOC systems.
Impact for external users	I3. Impact on clients' systems.
Impact description	The external users are solely responsible for the development/ adaptation of the CDM information sharing platform, making it compatible with internet/B2B technology, based on the documentation made available by NM in order to set up a reliable and functional system-to system interface. The NM B2B documentation is available on the OneSky Teams website https://ost.eurocontrol.int/sites/B2BWS/default.aspx Please refer specifically to the latest version of NM 19.5 - FlightServices documentation. The implementation of this system-to-system interface shall be linked to an A-CDM or to an Advanced ATC TWR airport implementation project, developed in close cooperation with the Network Manager, including the creation of a DPI ICD. For this reason, the external users are advised to contact the NM Airport unit at dpi_fum_support@eurocontrol.int , should they be interested to set up a B2B communication channel with NMOC for the provision of DPI messages. Starting from Release NM20.0, airports will have the option of providing departure planning information to NMOC either via the AFTN or via NM B2B.
Service reference	<u>ID P3410 - NM B2B</u> <u>ID S315 - Load and capacity management</u>
Safety assessment	S6. FB is Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB740 will be available on the NM B2B PREOPS platform around one month before the release migration.
Documentation publication	User Manuals: <ul style="list-style-type: none"> • DPI & FUM Implementation Roadmap • DPI Implementation Guide • Flight Progress Messages Document More information on the A-CDM and the Advanced ATC TWR airport projects can be

	found at: <ul style="list-style-type: none"> • http://www.eurocontrol.int/articles/cdm-airports • http://www.eurocontrol.int/articles/advanced-atc-twr-airports • http://www.euro-cdm.org/
Training sessions	None

5.2.7. Standalone CRs or I2s

CR 035843: SSR Code in CHMI Flight Lists and flight data

Users impacted	U1. Flow Manager (FMP) U14. Air Navigation Service Provider (ANSP)
Application impacted	A1. CHMI A2. CIFLO, CIAO
Objective	SSR Code in Flight Lists and flight data already exist in the NOP Portal. The same functionality will be provided in the CHMI.
Description	If a CCAMS level Yellow contingency situation occurs (i.e. SSR code was not received for one or more flights during a period up to 30 minutes), operational staff in a CCAMS ATS unit will be able to obtain the SSR code from CCAMS via the CHMI. Currently this is done by an individual flight search. CHMI will be updated to present SSR code data for all flights based on a departure airfield search.
Impact for external users	I1. Impact on procedures.
Impact description	Additional information will be provided in the CHMI Flight Lists. Users may need to have to adapt their procedures to use them
Service reference	<u>ID P349 - CHMI (Collaboration Human Machine Interface) Applications</u>
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The CR is planned to be part of the NM20.0 training.
Documentation publication	CHMI ATFCM Reference Guide
Training sessions	No specific training will be delivered.

5.3. RELEASE NM20.5

5.3.1. Airspace Management and Advanced FUA

FB720: ASM improvements	
Users impacted	U2. Airspace Manager (AMC) U8. AO or CFSP U12. Internal NM U14. Air Navigation Service Provider (ANSP)
Application impacted	A3. CIAM A4. CAGD A10. NOP Portal A11. NOP B2B A12. ASM Tools A13. NMVP
Objective	<p>CR_040591: This CR will adapt the “compare” function of EAUP/EUUP on the NOP Portal</p> <p>CR_040544: This CR will update ASM post-ops reports; in particular it will:</p> <ul style="list-style-type: none"> • Update the existing NMIR report AUP/UUP Details with the RSA updates. • Provide a new report on Flight Statistics and Usage for every CDR and CDR Segment (including possibility to filter by flight level). • Provide a new report on Flight Statistics and Usage for every RSA (including possibility to filter by flight level). <p>CR_040832: This CR will replace tabs "Level1 RSA Allocations" and "Level2 RSA Allocations" in the EAUP/EUUP display of the NOP Portal with "AMA RSA Allocations" and "NAM RSA Allocations" "RSA Allocations".</p>
Description	<p>CR_040591 - Adapt Compare function of EAUP/EUUP on the NOP Portal Adaptation of the Compare Function of EAUP/EUUP on the NOP Portal (public and restricted) in order to allow the visualization of only the changes to airspace structures (RSA and CDR) in terms of time and FLs, with reference to the start validity time (excluded) of the latest UUP used for the comparison.</p> <p>CR_040544 - ASM post-ops reports Implementation of three ASM Reports produced by NMIR, using post-ops ASM data available in DWH:</p> <ul style="list-style-type: none"> • Airspace releases in UUPs (including information of lead time used for notification, e.g. less than 1 hour, between 1 and 3 hours and more than 3 hours). • Statistics of flights (planned, used) on a CDR (any type, compulsory use). • Statistics of flights (planned, used) which cross a TSA/TRA in FRA. <p>CR_040832 - RSA exclusively defined as AMA and NAM for the AUP In the national AIP, RSAs are published as AMA (AMC Manageable Area) or NAM (Non AMC manageable Area), while on the NOP Portal (public and restricted), RSAs are displayed in two tabs: Level1 and Level2 RSA Allocations. When a NAM is allocated, it moves from the level1 to the level2 tab in the EAUP. As a result Airspace Users do not see the NAM in the tab where it was before and they might believe that it is no longer allocated. Only the defined type of areas (AMA or NAM) shall be kept as reference for the publication in EAUP. The two tabs "Level1 RSA Allocations" and "Level2 RSA Allocations" in the NOP Portal EAUP/EUUP display shall be replaced by "AMA RSA Allocations" and "NAM RSA Allocations", adapting contents accordingly "RSA Allocations", including a column "CAT" and a filter by RSA Category (i.e. AMA, NAM). The type of RSA (AMA or NAM) will also be provided via NM B2B.</p>

	No modification will be done in CIAM CHMI as it already shows AMA/NAM information.
Impact for external users	I2. Impact on Man-Machine interface. I3. Impact on clients' systems.
Impact description	ASM tools should be adapted as required in order to classify RSA as AMA/NAM only and ensure a correct exchange of data via B2B. AOs/CFSPs should adapt their systems as required based on the technical solution to adapt NOP portal (B2C) and eAMI message (B2B) for the visualization of RSA in EAUP/EUUP. The two tabs "Level1 RSA Allocations" and "Level2 RSA Allocations" in the NOP Portal EAUP/EUUP display are replaced by a single tab called "RSA Allocations".
Service reference	ID A211 - European Route Network Improvement Plan (ERNIP) ID A221 - Airspace Management (ASM) Processes ID P3410 - NM B2B ID P348 - Network Operations Portal ID S334 - Airspace Data Management
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	Inclusion of the FB into the NM20.5 OPT session is under assessment. FB720 is part of the NM20.5 OPT session.
Documentation publication	FUA - AMC/CADF Operations Manual CHMI ASM Function Reference Guide NOP Portal Users Guide
Training sessions	Not required.

FB794: Fine-tuning of FB725 (Dynamic creation and update of ad-hoc airspaces - NM20.0)

Users impacted	U1. Flow Manager (FMP) U2. Airspace Manager (AMC) U3. Airspace User (Civil) U4. Airspace User (Military) U5. ENV data provider U7. Post-ops analyst U8. AO or CFSP U12. Internal NM U14. Air Navigation Service Provider (ANSP)
Application impacted	A3. CIAM A4. CACD A5. Flow management systems (Predict, ETFMS) A6. FPL (IFPS) A7. Datawarehouse (NMIR) A10. NOP Portal A11. NOP B2B A12. ASM Tools
Objective	Improve the management of ad hoc airspace structures.
Description	CR_040824 - Dynamic creation and update of ad-hoc NAM areas:

	Creation and update of NAM areas out of existing airspaces within an AIRAC cycle via AUP/UUP, allowing the use of those areas via AUP/UUP and as reference location/flow element in Traffic Volumes (ATFCM) and Restrictions (flight planning).
Impact for external users	I2. Impact on Man-Machine interface. I3. Impact on clients' systems.
Impact description	AMCs, AOs and CFSPs shall be able to process airspace structures (both statically- and dynamically-created areas) information notified via EAUP/EUUP through NM B2B web services. There is no change in the B2B interface as dynamically-created areas are modelled by exactly the same set of attributes as other areas. Only the timing of the creation of the ad-hoc areas is different. Nevertheless, an extra validation mechanism will be implemented in CIAM in order to check the consistency of the AUP/UUP messages. In particular, all NAM associated to an AMC must be reflected in the AUP/UUP, including the dynamically-created ones. Therefore, external systems shall be able to manage the new error message in case of inconsistency of the AUP/UUP content. Of course, data refreshing capabilities for updating dynamic airspace data are requested in case an AMC is interested in having an up-to-date view of the airspace situation outside its own competency.
Service reference	ID A121 - Network Operations Monitoring ID A221 - Airspace Management (ASM) Processes ID P3410 - NM B2B ID P3411 - Data distribution ID P348 - Network Operations Portal ID P349 - CHMI (Collaboration Human Machine Interface) Applications ID S323 - Flight Plan pre-validation ID S325 - Flight Plan Processing and Distribution ID S334 - Airspace Data Management
Safety assessment	S6. FB is Safety related.
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB will not be part of the NM20.5 OPT session.
Documentation publication	<ul style="list-style-type: none"> • IFPS Users Manual • IFPS Users Manual (annex) Generated errors • NM Operational Problem reporting • Provision of Environment Data • FUA - AMC/CADF Operations Manual • CHMI ASM Function Reference Guide • CHMI ATFCM Reference Guide • CHMI ATFCM Map Reference Guide • Addendum to ATFCM CHMI & MAP Reference Guides • NOP Portal Users Guide • Re-Routing Opportunities - Information for Airspace Users (CHMI Version) • Re-Routing Opportunities - Information for Airspace Users (NOP Version)
Training sessions	None.

5.3.2. Cooperative Traffic Management

FB730: Slot swapping

Users impacted	U8. AO or CFSP
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Application impacted	A11. NOP B2B
Objective	The operational objectives of the FB730 are: <ul style="list-style-type: none"> To provide regulated flight slot swap identification. To provide a simple means of requesting slot swaps to the E-help desk.
Description	FB730 will provide a B2B facility that returns a candidate set of ATFM regulated flights whose slots may be requested to be swapped. The B2B service requests will allow the Airspace User to identify which ICAO FPL OPR field (Operator or Operators) it wishes to interrogate for swap candidates. This will enable swap identification between eg AOs belonging to the same Group. The B2B Service will allow CFSPs and OCCs to request NMOC e-help desk to swap a pair of flights.
Impact for external users	I3. Impact on clients' systems.
Impact description	The new service is only available to certified external users, on their request.
Service reference	ID P3410 - NM B2B
Safety assessment	S4. Safety assessment to be performed or on-going.
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	This FB is planned to be part of the NM20.5 OPT session.
Documentation publication	NM B2B Web Services Reference Manual
Training sessions	None.

5.3.3. NOP Information Services

FB767: NM B2B improvements

Nota: CR_040778 provides also new features for the NOP Portal and the CHMI

Users impacted	U1. Flow Manager (FMP) U2. Airspace Manager (AMC) U3. Airspace User (Civil) U4. Airspace User (Military) U8. AO or CFSP U10. Non-CDM Airport U13. CDM-Airport U11. ARO U14. Air Navigation Service Provider (ANSP)
Application impacted	A1. CHMI A5. Flow management systems (Predict, ETFMS) A10. NOP Portal A11. NOP B2B
Objective	This Functional Block intends to improve several existing NM B2B Web Services to address identified customers' needs. The improvements have been targeted according to feedbacks reported by customers

	(at the 2016 B2B users forum in particular) or pointed out by the NM B2B team. The improvements focus on making some information available to customers to better support operations and business, and reducing resource consumption.
Description	<ul style="list-style-type: none"> • CR_040778: Show VFR/OAT flights in B2B flight lists by aerodrome CR_040778 will provide the VFR/OAT flights (via the CHMI, the NOP Portal and NM B2B) in: <ul style="list-style-type: none"> ○ The flight list by aerodrome / set of aerodromes, ○ The flight list by traffic volume when the reference location is an aerodrome or set of aerodromes, ○ The traffic counts by aerodrome / set of aerodromes. • CR_041033: Export Terminal Procedure synonyms <p>Some Terminal Procedures have synonyms (in CACD) which are used in flight plans. The link between a Terminal Procedure ICAO Id and the Synonym Ids is introduced in B2B airspace data export.</p> <ul style="list-style-type: none"> • CR_041034: Provide aircraft address via B2B <p>The 24-bit aircraft address will be made available via B2B: The 24-bit aircraft address is present in about 30% of flight plans and is often included in the airborne messages received by TACT (e.g. CPRs).</p> <p>The aircraft address is stored by TACT but is currently not made available via B2B. It intends to improve the correctness of flight correlation on the users' side.</p> <ul style="list-style-type: none"> • CR_041035: Make P/S EAUP Message customizable <p>Currently the EAUP Message via B2B P/S contains the full EAUP (6-9MB). This CR provides the capability to customize the payload of P/S message (i.e. to select the fields to be included in the messages) for subscriptions on the EAUP topic.</p> <ul style="list-style-type: none"> • CR_041036: Move tactical updates operations to FlowServices <p>Tactical updates will be part of the Scenario Management which will be in the Flow service. The XML namespace will change accordingly (from Airspace to Flow).</p> <ul style="list-style-type: none"> • CR_041037: Provide highest profile for PT, AS, RS via B2B Request/Reply <p>When querying a flight via B2B Request/Reply, the user have now the possibility to require the most accurate profile (i.e. CTFM, then RTFM, then FTFM) for Points, Airspace and Restrictions profiles.</p> <ul style="list-style-type: none"> • CR_041038: Add reasonForChange to P/S Subscription Technical Messages <p>Subscriptions can be manually and automatically paused and suspended by NM. In such cases a Technical Message is sent to the queue to inform the user of the status change.</p>
Impact for external users	I3. Impact on clients' systems.
Impact description	External users will have to modify their system in order to be able to benefit from the FB767 improvements.
Service reference	ID P3410 - NM B2B ID P3411 - Data distribution ID S315 - Load and capacity management ID S334 - Airspace Data Management
Safety assessment	S6. FB is Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	No OPT session envisaged as it is small improvement on various NM B2B Web Services. FB767 is part of NM20.5 OPT session.
Documentation	NOP/B2B Reference Manuals

publication	
Training sessions	None.

FB785: Flight status/situation via publish/subscribe

Users impacted	<p>U1. Flow Manager (FMP) U3. Airspace User (Civil) U4. Airspace User (Military) U8. AO or CFSP U10. Non-CDM Airport U11. ARO U13. CDM-Airport U14. Air Navigation Service Provider (ANSP)</p>
Application impacted	<p>A5. Flow management systems (Predict, ETFMS) A6. FPL (IFPS) A11. NOP B2B A14. n-CONNECT</p>
Objective	<p>The Functional Block intends to improve the existing Flight Data and the Flight Plan via P/S, by adding new filtering capabilities and making information available to externals. The objectives are to:</p> <ul style="list-style-type: none"> • Improve the usability of both Flight Data and flight plan messages via B2B Publish Subscribe services. • Extend the targeted users: allow FMPs to use P/S Flight Data Message, so that P/S Flight Data message becomes an alternative to EFD. • Reduce the number of messages for both services (publish only relevant messages). • Reduce the size of Flight Data messages. • Improve the resource usage (disk, memory and network).
Description	<p>The FB785 improves the Flight Data and Flight Plan via P/S by adding new filtering capabilities:</p> <ul style="list-style-type: none"> • CR_041054 - Flight Data subscription by FPL originator. • CR_041058 - Flight Plan subscription by FPL originator. • CR_041055 - Time to send entry and exit offsets in flight data P/S. • CR_041059 - Time to send entry and exit offsets in flight plan P/S. • CR_041056 - Make Flight Data message customizable. <p>CR_041056 provides the capability to customize the payload of P/S message (i.e. to select the fields to be included in the messages) for subscriptions on the Flight Data topic.</p> <p>The FB785 also makes some information available to externals:</p> <ul style="list-style-type: none"> • CR_041057- Include Airspace profile in FlightDataMessage. <p>The current P/S Flight Data Message contains the PT profile but not the AS profile. In order to be a real alternative to the EFD for the FMPs, the AS profile is needed. Only the Elementary Sectors (ES) would be included; other Airspace types (like Collapsed Sectors) may be included in a future Release.</p>
Impact for external users	I3. Impact on clients' systems.
Impact description	External users will have to modify their systems in order to be able to benefit from the FB785 improvements.

Service reference	ID P3410 - NM B2B ID P3411 - Data distribution ID S315 - Load and capacity management
Safety assessment	S6. FB is Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB741 is planned to be available during the OPT session on the PRE-OPS platform.
Documentation publication	NOP/B2B Reference Manuals
Training sessions	None.

FB791: Dynamic Network Plan

Users impacted	U1. Flow Manager (FMP) U2. Airspace Manager (AMC) U3. Airspace User (Civil) U4. Airspace User (Military) U8. AO or CFSP U12. Internal NM U14. Air Navigation Service Provider (ANSP)
Application impacted	A10. NOP Portal
Objective	CR_040837 - Subscription facility for the Initial/Dynamic Network Plan Provide to the Network Plan users an eMail subscription facility so that these users will be notified immediately when the plan will be available.
Description	The Protected NOP Portal users will be able to enlarge their possibilities to receive a specific eMail when certain entities are available, in this case when the Network Plan or an update is available (Initial Network Plan today / Dynamic Network Plan in the future).
Impact for external users	I0. No impact.
Impact description	No impact for the external users: it is up to the user to decide to use this feature by providing an e-mail address in the Protected NOP Portal.
Service reference	ID P348 - Network Operations Portal
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB will not be part of the NM20.5 OPT.
Documentation publication	NOP Portal Users Guide
Training sessions	None.

CR_040708: EAUP / EUUP eMail subscription

Users impacted	U1. Flow Manager (FMP) U2. Airspace Manager (AMC) U3. Airspace User (Civil) U4. Airspace User (Military) U8. AO or CFSP U12. Internal NM U14. Air Navigation Service Provider (ANSP)
Application impacted	A10. NOP Portal
Objective	Provide an eMail subscription for EAUP or EUUP.
Description	Users will receive a specific eMail each time an EAUP or EUUP is published. Subscription (or un-subscription) will be done via the protected NOP Portal.
Impact for external users	I0. No impact.
Impact description	No impact for the external users: it is up to the user to decide to use this feature by providing an e-mail address in the Protected NOP Portal.
Service reference	ID P348 - Network Operations Portal
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. CR will be deployed in Operation along with the release migration.
Users' validation	The CR will not be part of the NM20.5 OPT.
Documentation publication	NOP Portal Users Guide
Training sessions	None.

FB795: New NM B2B Web Service for First System Activation (FSA)

Users impacted	U12. Internal NM U14. Air Navigation Service Provider (ANSP) U0: Other (specify): Tower (TWR)
Application impacted	A5. Flow management systems (Predict, ETFMS) A11. NOP B2B
Objective	The implementation of this Functional Block will allow the ANSPs to provide First System Activation (FSA) type messages to NMOC via B2B Web Services. Until now, the AFTN network has been the only available solution for establishing the communication between the ANSPs and the NMOC systems. However, web services are a more modern and more cost-effective way of exchanging data, based on internet technology. The aim is to increase the interoperability required in the future ATM systems, in line with the SWIM infrastructure.
Description	With this FB, NM will provide a new B2B web service. It will ensure that the NMOC systems will be prepared to accept and process FSA type information sent by users' applications. An ANSP or TWR shall develop its own application in order to be able to successfully provide FSA type information to NMOC systems.

	Starting from Release NM20.5, ANSP will have the option of providing First System Activation to NMOC either via the AFTN or via NM B2B.
Impact for external users	I3. Impact on clients' systems.
Impact description	<p>The external users are solely responsible for the development / adaptation of the FSA type information sharing platform, making it compatible with NM B2B technology, based on the documentation made available by NM in order to set up a reliable and functional system-to system interface. The NM B2B documentation is available on the OneSky Teams website https://ost.eurocontrol.int/sites/B2BWS/default.aspx (registration required).</p> <p>Please refer specifically to the latest version of NM 20.5 (FlightServices) documentation when available.</p> <p>The implementation of this system-to-system interface shall be linked to an ANSP or TWR implementation project, developed in close cooperation with the Network Manager, including the creation of an Interface Control Document of this data exchange.</p> <p>For this reason, the external users are advised to contact the NMOC at nm.B2B.webservices@eurocontrol.int, should they be interested to set up a B2B communication channel with NMOC for the provision of FSA type messages.</p>
Service reference	<p>ID P3410 - NM B2B</p> <p>ID P3411 - Data distribution</p> <p>ID S315 - Load and capacity management</p>
Safety assessment	S6. FB is Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB795 will be available on the NM B2B PREOPS platform around one month before the release migration.
Documentation publication	<ul style="list-style-type: none"> Flight Progress Messages Document NM B2B reference manuals
Training sessions	None

5.3.4. Operations Improvements

FB798: Airspace Data Domain improvements	
Users impacted	<p>U3. Airspace User (Civil)</p> <p>U5. ENV data provider</p> <p>U8. AO or CFSP</p> <p>U12. Internal NM</p> <p>U14. Air Navigation Service Provider (ANSP)</p>
Application impacted	<p>A1. CHMI</p> <p>A4. CACD</p> <p>A6. FPL (IFPS)</p>
Objective	Increase CACD Operations quality.
Description	<p>CR_0400638 - Capture flights filed on DCT's in FRA Airspace</p> <p>It is possible to define a Restriction that only forbids flights filling on DCTs from crossing an area. The flight plan is rejected when the Restriction is violated.</p> <p>CR_039942 - AUA can also control a CTA</p> <p>APPs (Approaches) may now control one TMA, CTR or CTA.</p>
Impact for	I1. Impact on procedures.

external users	I2. Impact on Man-Machine interface.
Impact description	<p>CR_0400638 - Capture flights filed on DCT's in FRA Airspace Flights filling DCTs can be forbidden from crossing specific areas, whilst flights using the route network to cross those areas are allowed. This will be reflected in the CHMI through the Restriction type "forbiddenForDct".</p> <p>CR_039942 - AUA can also control a CTA APPs will be able to control AUAs of type CTA as well as TMA or CTA CTR. APPs will still only be able to control one AUA.</p>
Service reference	ID S325 - Flight Plan Processing and Distribution ID S334 - Airspace Data Management
Safety assessment	S6. FB is Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	FB798 is planned to be included in the NM20.5 OPT exercise if the software is available in due time.
Documentation publication	<ul style="list-style-type: none"> • IFPS Users Manual • Provision of Environment Data • CHMI ASM Function Reference Guide
Training sessions	None

FB799: ATFCM Domain improvements - CR_040540: Regulation Proposal via B2B

Users impacted	U1. Flow Manager (FMP)
Application impacted	A5. Flow management systems (Predict, ETFMS) A11. NOP B2B
Objective	<p>The first objective of this functional block is to improve the Demand Capacity Balance process, enable closer collaboration with FMPs for traffic management, STAM and provide better situational awareness for NMOC.</p> <p>The second objective is to reduce the coordination time, the manual work and errors when implementing ATFM measures.</p>
Description	<p>This functional block implements a solution that enables the creation, modification and cancellation of proposals for regulations via B2B. The changes permit to FMPs to send regulation proposals using local tools.</p> <p>This functional block permits the creation of proposals for both classic regulation and cherry pick. The change permits the creation of proposals in both PREDICT and ETFMS.</p> <p>Concerning the classic regulation, the following parameters shall be included in the creation request:</p> <ul style="list-style-type: none"> • Regulation Id • Traffic Volume • Window Width • Period • Date • Rate • Reason • ANM Remark <p>Concerning the cherry pick regulation, the following parameters shall be included in the creation request:</p> <ul style="list-style-type: none"> • Regulation Id • Traffic Volume

	<ul style="list-style-type: none"> Reason ANM remark A list of included flight (s) <p>The proposal the cherry pick regulation shall include a list of included flights candidates for cherry pick as follows :</p> <ul style="list-style-type: none"> ARCID ADEP ADES IOBT Desired CTO/CTOT
Impact for external users	<p>I1. Impact on procedures.</p> <p>I3. Impact on clients' systems</p>
Impact description	<p>The external users that want to propose regulations to NMOC from their local systems will have to adapt their B2B services based on the content of NM20.5 NOP/B2B Reference Manuals (Flow Services).</p>
Service reference	<p>ID P3410 - NM B2B</p> <p>ID P3411 - Data distribution</p> <p>ID S315 - Load and capacity management</p>
Safety assessment	<p>S6. FB is Safety related</p>
Operational deployment plan	<p>D1. FB will be deployed in Operation along with the release migration.</p>
Users' validation	<p>The FB is planned to be part of the NM20.5 OPT session.</p>
Documentation publication	<ul style="list-style-type: none"> ATFCM Operations Manual NOP/B2B Reference Manuals - Flow Services
Training sessions	<p>The B2B users shall follow an acceptance session in PREOPS before using the new B2B service in OPS. Such acceptance sessions can be followed as from the initial date of the OPT session for release NM 20.5.</p>

FB799: ATFCM Domain improvements - CR_040838: Improve the V flights mechanism

Users impacted	<p>U8. AO or CFSP</p> <p>U12. Internal NM</p>
Application impacted	<p>A1. CHMI</p> <p>A5. Flow management systems (Predict, ETFMS)</p> <p>A10. NOP Portal</p>
Objective	<p><u>Background:</u></p> <p>When a flight is regulated, the CTOT may delay the flight into one or more IFPS time dependent constraints (e.g. RAD restrictions, CDR closed), hence violations appear on route and/or airspace restrictions. Before release NM19.5 there was not any mechanism in ETFMS or IFPS to prevent regulated flights being pushed into IFPS violations. ATC units had to ensure that the necessary tactical ATC actions were taken to resolve the individual situations.</p> <p>ODSG requested to implement software solutions to minimize the cases described above. A software solution was implemented in release NM19.5 that limited the slot given to the flights, placing them at the border of IFPS violations.</p> <p>The NM19.5 system improvement and the application of the procedure "CASA does not push flights into closed area" ensure that the number of flights in such situation disappears or remains marginal.</p> <p>As stated in the procedure, the monitoring functionality has been used to identify flights pushed into IFPS violations that could produce larger bunching. The majority of days</p>

	<p>the flights have not produced significant bunching.</p> <p>In the situations where the bunching had to be solved, from the different procedural options, the slot adjustment has been the option selected to smooth the traffic.</p> <p>Some workload difficulties have been noticed in the monitoring and management of bunching during industrial actions. For such situations, as written in the procedure, suspending the flights producing larger bunching is a possibility that is considered in future similar events.</p> <p>The objective of the change is, whenever suspension is the selected solution, to facilitate the application the procedure in a minimum time.</p>
Description	<p>The change implemented permits to group suspend regulated flights and attach to the suspension message (FLS) a comprehensive explanation of the reason and the IFPS errors presented.</p> <p>A suspension comment and the IFPS violation errors are automatically added to the suspension message when manually suspending a group of V flights.</p> <p>The suspension message includes:</p> <ol style="list-style-type: none"> 1.COMMENT FIELD: Standard recommended action for the airspace user ("FLIGHT IS SUSPENDED, ROUTE INVALID DUE TO DELAY, SEE ERROR(S). PLEASE SEND DLA/CHG OR REROUTE THE FLIGHT") 2.COMMENT FIELD: Free text entered by the user before applying the group suspension. This free text will be added at the end of the standard recommendation. 3.ERROR: description of the error type and IFPS code. <p>Note that the suspension message (FLS) does not present any new or additional fields and follows ADEXP standards.</p> <p>An example of the ADEXP flight suspension message (FLS) is presented below:</p> <pre>-TITLE FLS -ARCID SN301 -IFPLID AA00001111 -ADEP LFHM -ADES LIML -EOBD 981113 -EOBT 2300 -COMMENT FLIGHT IS SUSPENDED, ROUTE INVALID DUE TO DELAY, SEE ERROR(S). PLEASE SEND DLA/CHG OR REROUTE THE FLIGHT -COMMENT ADDITIONAL FREE TEXT -ERROR PROF204: RS: TRAFFIC VIA OMETO TERSI IS ON FORBIDDEN ROUTE REF:[LIPZ1A] UB4 AOSTA SRN SAT SUNDAY ONLY AVAILABLE -TAXITIME 0005</pre>
Impact for external users	I1. Impact on procedures.
Impact description	The aircraft operators can receive suspension messages under the conditions received above. There is no change on message format or current procedures.
Service reference	ID P3410 - NM B2B ID P3411 - Data distribution ID S315 - Load and capacity management
Safety assessment	S6. FB is Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	Inclusion of the NM20.5 into the OPT session is under assessment.
Documentation publication	<ul style="list-style-type: none"> • ATFCM Users Manual • ATFCM Operations Manual

Training sessions	None
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5.3.5. Performance Programme

FB772: Performance Programme

Users impacted	U0. Other (specify): NMIR users; users receiving SAM, SRM, FLS messages
Application impacted	A7. Datawarehouse (NMIR) A0. Others (specify): systems used to process SAM, SRM, FLS messages
Objective	Update IATA code mapping with regulation reasons Provide NMIR compliance reports

Description	<p>CR_040036 – ATFM Compliance reporting (NMIR) The ATFM IR Performance reports will be available via NMIR.</p> <p>CR_040931 – Update Regulation REASON codes based on IATA</p> <p>IATA has updated the “Correlation table between NM Regulation reasons and IATA delaycodes” as published in the IATA AHM730 (Airport Handling Manual 730). The same correlation table is copied in the ATFCM User Manual - cf. para. 6.</p> <p>The main changes to this table are:</p> <ul style="list-style-type: none"> • The introduction of a IATA delaycode 81 for the new NM Regulation reason – location combination V-E; • Recoding of certain IATA codes for NM Regulation codes listed in the correlation table <p>In order to provide more specific nomenclature for delay causes and, at the same time, to assist the post-flight analysis, the ADEXP field “-REGCAUSE” will comprise:</p> <ul style="list-style-type: none"> • Regulation cause code (one letter code corresponding to the cause assigned by the NM to the most penalising regulation). • Regulation Location code - one letter code (D, E or A), describing the phase of the flight (Departure, Enroute and Arrival) affected by the most penalising regulation. • A space. • The IATA Delay Code in numerics (81, 82, 83, 84, 89, 98 or 99) or 00 when no IATA Code available. <p>The “-REGCAUSE” appears in the SAM and SRM messages and is associated only with the most penalising regulation. The code appearing in the message is the code valid at the time the delay was given to the flight. (see Annex 8 of ATFCM User Manual - cf. para. 6)</p> <p>Below is an example of a SAM message. This is a regulation due to ATC Staffing (S) on an en-route (E) reference location. SE currently maps onto IATA delay code 82 (see Annex 6 Of ATFCM User Manual - cf. para. 6):</p> <pre>-TITLE SAM -ARCID CFE99P -IFPLID AA00034376 -ADEP EGPB -ADES EGLC -EOBD 160331 -EOBT 1655 -CTOT 1752 -REGUL EGTSS31 -TTO -PTID JACKO -TO 1845 -FL F090 -TAXITIME 0010 -REGCAUSE VE 81</pre> <p>Table of changes introduced with NM20.5:</p>
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	NM20.0	NM20.5
	G-D IATA code 87	IATA code 89 "RESTRICTIONS AT AIRPORT OF DEPARTURE"
	G-A IATA code 87	IATA code 83 "ATFM DUE TO RESTRICTIONS AT DESTINATION AIRPORT"
	E-D IATA code 87	IATA code 99 "OTHER"
	E-A IATA code 87	IATA code 99 "OTHER"
	W-E IATA code 73	IATA code 81 "ATFM DUE TO ATC ENROUTE DEMAND/CAPACITY"
	V-E Not yet linked to an IATA code	IATA code 81 "ATFM DUE TO ATC ENROUTE DEMAND/CAPACITY"
These changes will impact the SAM, SRM and FLS messages.		
Impact for external users	I1. Impact on procedures. I3. Impact on clients' systems.	
Impact description	SAM, SRM and FLS messages content will be impacted.	
Service reference	ID P3411 - Data distribution	
Safety assessment	S5. FB is not Safety related	
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.	
Users' validation	Inclusion of the FB into the NM20.5 OPT session is under assessment.	
Documentation publication	<ul style="list-style-type: none"> • ATFCM Users Manual • NMIR (CIR) Technical Requirements • NMIR (CIR) Users' Guide 	
Training sessions	None.	

5.3.6. Airport and TMA Network Integration

FB753: Airport Programme	
Users impacted	U7. Post-ops analyst U8. AO or CFSP U13. CDM-Airport
Application impacted	A5. Flow management systems (Predict, ETFMS)
Objective	<p>The validation rules applied in ETFMS for the TTOT values in the DPI messages need to be improved in order to identify wrong ATC/Airport/Airline/Ground Handler system inputs. In addition, there were cases when the TOBT and TSAT were rejected incorrectly due to the validation criteria being too strict.</p> <p>In the CDM concept, TSAT and TOBT are related, i.e. a TSAT without an associated TOBT does not make sense operationally. Such TSAT values should be invalidated.</p>
Description	<p>CR_039930 - Modify validation parameter for TTOT of E-DPI, T-DPI-t and T-DPI-s</p> <p>The acceptance criteria of the TTOT value in an E-DPI, T-DPI-t and T-DPI-s message will be modified as follows:</p> <p>E-DPI:</p>

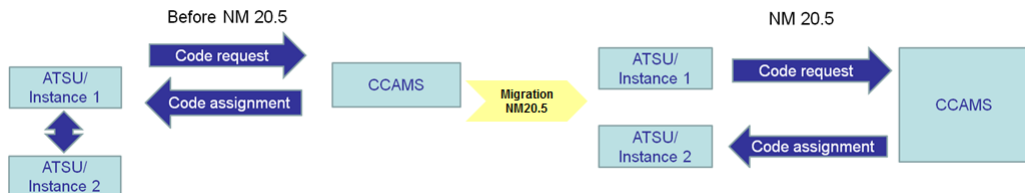
	<ul style="list-style-type: none"> • $EOBT + Min_TT - 45min \leq TTOT \leq ETFMS_OBT/COBT + Max_TT + 180min$ <p>T-DPI-t:</p> <ul style="list-style-type: none"> • $EOBT + Min_TT - 45min \leq TTOT \leq ETFMS_OBT/COBT + Max_TT + 120min$ <p>T-DPI-s:</p> <ul style="list-style-type: none"> • For non-regulated flights: $EOBT + TT - DTW_LowerBound \leq TTOT$ $EOBT + Min_TT - 45min - DTW_LowerBound_Extension \leq TTOT \leq ETFMS_OBT + Max_TT + 120min + DTW_UpperBound_Extension$ • For regulated flights: $EOBT + TT - STW_LowerBound - 10min \leq TTOT$ $EOBT + Min_TT - 45min - STW_LowerBound_Extension \leq TTOT \leq COBT + Max_TT + 120min + STW_UpperBound_Extension$ <p>Where:</p> <ul style="list-style-type: none"> • EOBT is the IFPS OBT, TT is the Taxi Time of FTFM. • Min_TT / Max_TT are the minimum / maximum of the current taxi time of FTFM and the new taxi time from the DPI message. <p>Note: Other validation conditions may apply!</p> <p>CR_039928 - Improve TOBT & TSAT usage implementation - part 5</p> <p>The acceptance criteria for TOBT & TSAT will be modified as follows:</p> <ul style="list-style-type: none"> • Validation of TOBT: $TOBT \geq EOBT - 45min$ $TOBT \leq EOBT + 240min$ $TOBT \leq clock + 240min$ E-DPI or T-DPI-t only: $TOBT \leq TTOT$ • Validation of TSAT: $TSAT \geq TOBT - 15min - S/DTW_LowerBound_Extension$ • For non-regulated flights and T-DPI-s only: $TSAT \geq EOBT - DTW_Lower_bound$ $TSAT \leq TTOT$ • Validation of TSAT for regulated flights: $TSAT \geq EOBT - STW_Lower_bound - 10min$ $TSAT \leq CTOT + 115min + STW_UpperBound_Extension$ <p>Note: Other validation conditions may apply!</p> <p>When a DPI message (other than A-DPI and C-DPI) is received after $ETFMS_OBT - 40$ minutes and it does not contain the TOBT field, an olog message "TOBT missing" will be created.</p> <p>The TSAT will be invalidated when TOBT is not present in the same message and TOBT is declared missing, as defined above.</p>
Impact for external users	I2. Impact on Man-Machine interface. I3. Impact on clients' systems.
Impact description	The margins of acceptance have been generally extended.
Service reference	ID S315 - Load and capacity management
Safety assessment	S6. FB is Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	This FB will not be part of the NM20.5 OPT session
Documentation	DPI Implementation Guide

publication	
Training sessions	None.

CR_037419: Display TOBT / TSAT / TT in the protected NOP Portal flight list	
Users impacted	U8. AO or CFSP U13. CDM-Airport
Application impacted	A10. NOP Portal
Objective	Display additional DPI information on the protected NOP Portal Flight List
Description	If available in the DPI messages, the TOBT / TSAT / Taxi Time fields will be displayed in the Flight List of the protected NOP Portal (in-between the TTOT AT (Airport Type) and the Delay column). These fields are currently displayed on the NOP Portal, in the Flight Details section for individual flights. The CR proposes that all relevant information is centralized in one place, providing an operative overview of flights to AOCs AOCC's.
Impact for external users	I2. Impact on Man-Machine interface.
Impact description	New columns will be appended to the Flight List of the NOP Portal Flight lists columns in the protected NOP Portal will be modified. Please note that the change only concerns the protected NOP Portal. The equivalent CHMI adaptation is planned for a future release (CR_040776).
Service reference	ID P348 - Network Operations Portal
Safety assessment	S5. FB is not Safety related S6. FB is Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	No OPT is organised for a NOP Increment. The CR will be part of the NM20.5 OPT session.
Documentation publication	NOP Portal Users Guide
Training sessions	None.

5.3.7. Other Projects

FB759: Transponder Code Function	
Users impacted	U5. ENV data provider U12. Internal NM U14. Air Navigation Service Provider (ANSP)
Application impacted	A1. CHMI A4. CACD A5. Flow management systems (Predict, ETFMS) A6. FPL (IFPS) A8. CCAMS
Objective	Further optimization of scarce resources (SSR Mode A codes) and possibility to prevent assignments of Mode S ELS A1000 for shorter periods in case of maintenance or

<p>Description</p>	<p>failure.</p> <p>CR_039809 - Suppress the insertion of the Mode S flag It shall be possible to suppress the insertion of the Mode S ELS IFPS indicator (IFP/MODEASP) into an FPL using restrictions. Currently, the MODE S ELS flagging is based on static data that can only be modified at AIRAC dates. Already today, this leads to situations during which the Mode S flag cannot be suppressed early enough in case of Mode S issues, maintenance, military crisis situations. Due to the possible multiple loss of identification in cases of incorrect flagging (i.e. multiple A1000 within airspace without Mode S capability), this has a safety impact and in the worst case, it can take over 5 weeks before a modification can be done. Using live-updateable restrictions, this period will be reduced to hours. As a logical consequence, the current suppression mechanism for CCAMS units (checkbox "Mode S disabled" in ATSS UT) should be removed and cleaned up.</p> <p>CR_040782 - No MFD for circular flights So far, any COR message received by NM resulted in a CCAMS code assignment, even if there was not flight plan available and for any kind of flights. The SSR codes assigned in this context were protected all over Europe for a period of 6 hours to ensure unambiguity in the absence of flight details which can lead to the respective code pools being drained very quickly. The new behavior will be that if a COR is received for a flight for which no FPL can be found AND with the same ADEP and ADES (circular flights), the COR will be rejected. With very few exceptions, these flights are either VFR or military flights without FPL for which a COR is being sent accidentally. A comprehensive ERR will be returned: "circular flight, no FPL, no SSR code assigned" (or similar)</p> <p>CR_039811 - Introduction of the possibility to have individual and independent addressing for COR reception and CAM transmission. This CR is required by CCAMS users in support to migration to new ATS systems. It will facilitate the shadow operations during transition to new ATS systems.</p> 
<p>Impact for external users</p>	<p>I1. Impact on procedures.</p>
<p>Impact description</p>	<p>CR_039809 - Suppress the insertion of the Mode S flag As from NM20.5, it will be possible to prevent the insertion of the IFP/MODEASP indicator into an FPL based on live updateable flow restrictions. This means that for any new FPL crossing the respective location the flag will be removed from field 18.</p> <p>CR_040782 - No MFD for circular flights For circular flights without FPL, CCAMS will not send a CAM anymore but respond with an ERR upon COR reception. The FDPS will assign a local code instead which should be done anyway for these flights. The change will be transparent as this has already been covered as part of the CCAMS URD and System Specifications.</p>
<p>Service reference</p>	<p><u>ID S143 - Service for an efficient European SSR Code management</u></p>
<p>Safety</p>	<p>S5. FB is not Safety related</p>

assessment	
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB will not be part of the NM20.5 OPT session
Documentation publication	Mode S ELS documentation will be updated
Training sessions	None.

FB760: Extend 833 Warning Mechanism

Users impacted	<p>U3. Airspace User (Civil) U4. Airspace User (Military) U5. ENV data provider U6. Management (eg crisis management, performance management) U7. Post-ops analyst U8. AO or CFSP U11. ARO U12. Internal NM U14. Air Navigation Service Provider (ANSP)</p>
Application impacted	A6. FPL (IFPS)
Objective	The objective of the FB is to increase awareness of airspace users operating aircraft not equipped with 8.33 kHz spacing channel radios..
Description	<p>EU IR 1079/12 has triggered a vertical extension of the mandatory carriage of 8.33 kHz radios below FL195 in the EU member states, Norway and Switzerland. The conversion of the sectors to 8.33 kHz frequencies is gradual (until 1/1/2018). The 8.33 IFPS checking is based on a geographical area composed of sectors where carriage is mandatory. IFPS checks the aircraft equipment (FPL item 10a +18) vs 8.33 area penetration. IFPS (through CACD) will have a representation of the airspace below FL195 where 8.33 is not mandatory yet: the 8.33 warning area. A warning will be present in the ACK message of flight plans not equipped with 8.33 (no Y in item 10a) and where the trajectory will cross the warning area and not the mandatory area. <i>The message will be preceded by "-COMMENT"</i>. Warning example in ACK message (please note that the length of the free-text message has been shortened in order to avoid truncated communications in case of long ACK messages):</p> <p>From 01/01/2018 mandatory 8.33 kHz radio equipage will be required in the entire airspace of Switzerland, Norway and EU member states. FPL may be rejected earlier than this date in [xx, yy, zz...] FIRs, if the flight crosses sectors in which 8.33 kHz radio is already required. For further information check AIP/AIC</p> <p><i>-COMMENT MANDATORY 8.33KHZ RADIO EQUIPMENT REQUIRED FROM 01/01/2018. LOVV, EDUU AND EDBB FIR MAY REQUIRE 8.33KHZ RADIO CARRIAGE BEFORE THIS DATE. CHECK AIP/AIC.</i></p> <p>Note: the warning area will, over the next few years, be dynamically updated as the states convert gradually the sectors to 8.33 frequencies.</p> <p><i>The FB760 will not affect the REJ message (i.e. the REJ message will not contain the warning text).</i></p>

Impact for external users	I3. Impact on clients' systems.
Impact description	REJ message may contain an additional free text (warning message). The FB760 will not affect the REJ message (i.e. the REJ message will not contain the warning text). External systems shall be able to manage a warning message in the ACK.
Service reference	ID P3410 - NM B2B ID P3411 - Data distribution ID S323 - Flight Plan pre-validation ID S325 - Flight Plan Processing and Distribution ID S334 - Airspace Data Management
Safety assessment	S5. FB is not Safety related
Operational deployment plan	D1. FB will be deployed in Operation along with the release migration.
Users' validation	The FB is planned to be part of the NM20.5 OPT session.
Documentation publication	<ul style="list-style-type: none"> • IFPS Users Manual • Airspace Data Repository (ADR) Data Catalogue • Airspace Data Repository (ADR) Data Catalogue Annex A
Training sessions	No specific training is planned.

6. DOCUMENTATION

Network Operations handbook	
Network Operations library	http://www.eurocontrol.int/lists/publications/network-operations-library
ATFCM Users Manual	http://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/HANDBOOK/atfcm-users-manual-next.pdf
ATFCM Operations Manual	https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/HANDBOOK/ATFCM-Operations-Manual-next.pdf
NM B2B documentation	https://ost.eurocontrol.int/sites/B2BWS/default.aspx Registration required – contact NM.servicerequests@eurocontrol.int
CCAMS User Manual	http://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/HANDBOOK/ccams-user-manual-next.pdf
IFPS Users Manual	http://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/HANDBOOK/ifps-users-manual-next.pdf Flight Plan guide: https://contentzone.eurocontrol.int/fpl/default.aspx
Flight Plan Guide and IFPS errors guide	https://contentzone.eurocontrol.int/fpl/default.aspx

7. ABBREVIATIONS

ACC	Area Control Centre or Area Control
A-CDM	Airport-Collaborative Decision Making
ACK	IFPS Acknowledgement Message
ADEP	Aerodrome of Departure
ADES	Aerodrome of Destination
ADEXP	ATS Data Exchange Presentation
ADID	Aerodrome Identification
A-DPI	Airport-Departure Planning Information
ADR	Airspace Data Repository
AFTN	Aeronautical Fixed Telecommunication Network
AIC	Aeronautical Information Circular
AIM	Air Traffic Flow Management Information Message
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information, Regulation and Control
ALTN	Alternate
AMA	AMC Manageable Area
AMC	Airspace Management Cell
ANM	Air Traffic Flow Management Notification Message
ANSP	Air Navigation Service Provider
AO	Aircraft Operator
AOC	Airline Operations Control Centre
AOCC	Airline Operations Control Centre
AOG	Airline Operations Group
AOLO	Aircraft Operators Liaison Officer
AOP	ATM Operations Plan
APOC	Airport Operations Centre
APP	Approach
ARCID	Aircraft Identification
ARO	Air Traffic Services Reporting Office
AS	Airspace
ASM	Airspace Management
ASM-SG	Airspace Management - Sub-Group
AT	Aircraft Type
AT	Airport Type
ATC	Air Traffic Control
ATFCM	Air Traffic Flow and Capacity Management
ATFM	Air Traffic Flow Management
ATM	Air Traffic Management
ATS	Air Traffic Services
ATSS	Air Traffic Services
AUA	ATC Unit Airspace
AUP	Airspace Use Plan
B2B	Business-to-Business
B2C	Business-to-Consumer
BIS	Business Intelligence System

CAA	Civil Aviation Authority
CACD	Central Airspace and Capacity Database (new name of ENV)
CADF	ECAC Centralized Airspace Data Function
CAM	Computer Aided Manufacturing
CASA	Computer Assisted Slot Allocation
CAT	Data Category
CCAMS	Centralised SSR Code Allocation & Management
CDM	Collaborative Decision Making
C-DPI	Cancel-Departure Planning Information
CDR	Conditional Route
CFSP	Computerised flight plan service provider
CHG	Modification Message
CHMI	Collaboration Human Machine Interface
CIAM	Collaboration Interface for AMCs
CIAO	Collaboration Interface for AO
CIFLO	Collaboration Interface for Flow management position
CIR	CFMU Interactive Reporting (now NMIR)
COBT	Calculated Off Block Time
COR	Code Request
CPA	Collaboration Portal Application
CPR	Correlated Position Report
CR	Change Request
CSMC	Call-Sign Management Cell
CSS	Call-Sign Similarities
CSST	Call-Sign Similarities Tool
CSSUG	Call-Sign Similarity User Group
CTA	Control Area
CTFM	Current Tactical Flight Model
CTM	Cooperative Traffic Management
CTO	Calculated Time Over
CTOT	Calculated Take-Off Time
CTR	Control Zone
CUA	Common User Access
DCT	Direct Route
DEP	Departure (Airport)
DEST	Destination (Airport)
DLA	Delay or Delay Message
DPI	Departure Planning Information
DWH	Data Warehouse system
EASA	European Aviation Safety Agency
EAUP	European Airspace Use Plan
EC	European Commission
ECAC	European Civil Aviation Conference
E-DPI	Early-Departure Planning Information
EFD	ETFMS Flight Data
EGLL	ICAO code for London Heathrow airport
ELS	Elementary Surveillance
ENV	NM Environment System (former name of CACD)

EOBD	Estimated Off Block Date
EOBT	Estimated Off Block Time
ERNIP	European Route Network Improvement Plan
ERR	Error Message
ES	Elementary Airspace
ESR	Extended Support Release
ETFMS	Enhanced Tactical Flow Management System
ETOT	Estimated Take-off Time
EU	European Union
EUROCONTROL	European Organization for the Safety of Air Navigation
EUUP	European Update airspace Use Plan
FAAS	Flight Assessment and Alert System
FB	Functional Block
FDPS	Flight Data Processing System
FE	Flight Efficiency
FIR	Flight Information Region
FL	Flight Level
FLS	Flight Suspension Message
FMP	Flow Management Position
FPL	Flight Plan message (ICAO format)
FRA	Free Route Airspace
FSA	First System Activation message
FTFM	Filed Tactical Flight Model
FUA	Flexible Use of Airspace
FUM	Flight Update Message
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICD	Interface Control Document
ID	Identifier
IFP	Keyword from IFPS used in Field 18 to provide a warning
IFPLID	Individual Flight Plan Identity code
IFPS	Integrated Initial Flight Plan Processing System
IFPUV	IFPS Unit for Validation
IOBT	Initial estimated Off Block Time
IR	Implementing Rule
KPI	Key Performance Indicator
M&R	Monitoring and Reporting
MFD	Mini Flight Data
MODE	S Mode Select (SSR Selective Interrogation Mode)
NAM	Non AMC manageable Area
n-CONNECT	network-COMmon Enhanced Collaborative ATM
NETOPS	Network Operations Team
NM	Nautical Mile
NM	Network Manager
NMD	Network Manager Directorate
NMIR	NM Interactive Reporting (former CIR)
NMOC	Network Manager Operations Centre
NMVP	Network Manager Validation Platform

NOP	Network Operations Plan
NOTAM	Notice to Airmen
NSP	Network Strategy Plan
OAT	Operational Air Traffic
OBT	Off Block Time
OCC	Operations Control Centre
ODSG	Operations and Development Sub-Group
OPR	Operational Preferences; Operator; Operate; Operative; Operating
OPS	Operations
OPT	Operational testing
OS	Operating System
OVD	Over-delivery
P/S	NM B2B Publish/Subscribe
PC	Personal Computer
PC	Provisional Council
PI	Performance Indicator
PT	Point : ENV data entity type
R&D	Research and Development
RAD	Route Availability Document
RAU	Rate of Actual Use of CDR
REA	Ready Message
REGUL	Regulation
REJ	Reject Message
RoCA	Rate of CDR Availability
RP2	Reporting Period 2
RS	Restriction
RSA	Restricted Airspace
RTFM	Regulated Tactical Flight Model (by ATFM Measures)
SAFA	Safety Assessment of Foreign Aircraft (Programme)
SAM	Slot Allocation Message
SAT	System Acceptance Test
SEE	Society, Environment, Economics (an EEC Research Area)
SES	Single European Sky
SESAR	Single European Sky ATM Research
SITA	Societe Internationale de Telecommunications Aeronautiques
SO	Strategic Objective
SRM	Slot Revision Message
SSR	Secondary Surveillance Radar
STAM	Short-Term ATFM Measures
SWIM	System-Wide Information Management
TACT	Tactical System (predecessor of ETFMS)
TB	Technical Block
TCF	Transponder Code Function
T-DPI	Target DPI
T-DPI-s	Target DPI - Sequenced
T-DPI-t	Target DPI - Target
TITLE	Message Name
TMA	Terminal Manoeuvring Area

TOBT	Target Off Block Time
TRA	Temporary Reserved Area
TSA	Temporary Segregated Area
TSAT	Target Start-Up Approval Time
TTO	Target Time-Over
TTOT	Target Take Off Time
TTOTs	TTOT contained in a T-DPI-s
TTOTt	TTOT contained in a T-DPI-t
TWR	Aerodrome Control Tower or Aerodrome Control
UDPP	User Driven Prioritisation Process
URD	User Requirements Document
URL	Uniform Resource Locator
UT	Unit
UTC	Coordinated Universal Time
UUP	Updated Airspace Use Plan
VFR	Visual Flight Rules
XMAN	Extended Arrival Manager
XML	Extensible Mark-up Language