NM23.5 OPT INSTRUCTIONS
NM OPT session
planned 02 September - 04 October 2019
This document provides instructions to external users for participating to the NM23.5 OPT (Operational Testing) session.

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1 Introduction

(1) This Test Plan defines the purpose, scope, procedures and schedule of activities for the Operational Testing (OPT) of new software release of NM23.5.

(2) The intended audience of this Test Plan is all EUR region States, Airports, Aircraft Operators and all other ANSPs, Regions and Organisations.

(3) The testing activities described in this document are intended to address the software changes introduced within the NM23.5 release.

(4) This document describes only the testing activities involving external participation where stakeholders are encouraged to participate. It does not include the various EUROCONTROL Network Manager internal testing activities i.e. Acceptance Testing, Regression Testing and Integration Testing.

(5) The Operational Testing described in this document will permit participants to evaluate the impact of the modifications on their procedures and systems.

(6) The content for NM23.5 can be found in the NM Release notes which are published on the EUROCONTROL website: https://www.eurocontrol.int/publication/network-manager-release-notes-planned-implementation-2019-2020

(7) The presentation to Externals of NM23.5 (slides and recording) will be available at: https://www.eurocontrol.int/publication/network-manager-release-notes-planned-implementation-2019-2020

(8) OPT session will take place from the 02/09/2019 08:00 UTC to the 04/10/2019 15:00 UTC.

(9) The platform will be available 7/7 but assistance only during week days.
2 Objectives

2.1 General Objectives

(1) The overall objectives of NM23.5 OPT testing are to:
   a) Demonstrate the new software functionality;
   b) Enable the new functionality to be tested against client systems;
   c) Enable knowledge to be gained of new procedures;
   d) Enable familiarisation of client staff and NM staff with the new functionality.

2.2 Main Functional Objectives

(1) Demonstrate the ability of IFPS to correctly validate messages against the new NM software updates.

(2) Demonstrate the ability of flight plan originators to create / validate flight plan and associated messages.

(3) Demonstrate the ability of ATC units to accept messages received from NM23.5 software.
3 New functionalities

(1) This section lists new functionally included in the NM23.5 release for NM Systems that may be of interest to external users where they may feel the need to perform validation. For full scope of all functional requirements for each item impacting Externals, please consult the NM Release Notes.

(2) Tests of these functionalities will be executed on the standalone SAT (System Acceptance Testing) test platform. They will not be executed on the NM operational platform.

3.2 Functional Blocks

3.3 FB1024: ASM - Advanced FUA process improvements

(1) The objective is to provide more flexible solutions to manage airspace structure data via AUP/UUP

(2) **CR_044037: Alert for P3 request**

   In the case of P3 (Procedure 3) requests, the AMC should advise NM on the unplanned activation of airspace to allow impact assessment by NM. Currently, this request is communicated manually between AMC and NM (MILO).

   This change request will introduce a warning for P3 requests inside the UUP in CIAM. A flag for P3 request will be provided via NM B2B to AMCs using ASM tools interoperable via B2B with NM.

   CIAM users:
   • Highlights the UUP containing P3 request(s) in the AUP/UUP list display.
   • Highlights the individual P3 request(s) in the Overview tab of the UUP display.

   NM B2B users: returns P3 request(s) flag(s).

Impact for external users:

I1. Impact on procedures.

3.4 FB1030: API improvements Enhancement of arrival planning processes

(1) The operational objective is to fully integrate airports into the network on the basis of linking the Network Operation Plan with the Airport Operation Plans (AOP/NOP).

(2) Sizing of the NM B2B service thresholds in accordance with the needs of AOP/NOP integration experiences

(3) Enhancement of Network Cherry Pick Regulation service requests to support needs of Arrival Planning Information processes e.g. regulation updates and regulation sub periods

   Provision of correction and tuning exposed by the SESAR PJ24 and PJ25 trials

(4) The external systems need to take careful note of the NM B2B thresholds and the principles of use. These are explained in the current NOP/B2B Reference Manuals –
Serial connection is expected AND respect of the NM B2B thresholds is essential if service requests rejection is to be avoided.

5. The arrival planning information (API) measures require a Network Cherry Pick measure. The proposal for creating these via B2B is enhanced with added flexibility to update these according to the evolving airport and network situation. There are new fields that can be exploited by the client.

6. The PJ24 and PJ25 enhancements are not defined in this addition

Impact for external users:

I1. Impact on procedures.
I3. Impact on clients’ systems.

### 3.5 FB1016: NM airspace data model evolution

1. With the FB1016, NM will align the CACD Arrival Procedures (AP) data model to cover the AIXM STAR and IAP concepts (STAR and IAP being connected to each other at the IAF).

2. B2C (CIREN, n-CONECT, CHMI and derivatives):
   - B2C users will see the STARs and IAP as separate objects in NM23.5.

3. B2B:
   - In NM23.0 the end users receive from CACD via B2B an AP which corresponds to the combination of a STAR and an IAP.
   - In NM23.5 users will continue to receive the same information.
   - The IAP will be published via B2B from NM24.0 onwards.

4. B2C users will see the STARs and IAP as separate objects.

5. Please note that FB1016 will only impact ENV HMI users (ENVCOORs).

Impact for external users:

I2. Impact on CFMU Human-Machine interface.

### 3.6 FB1036: CASTAR improvements

1. **CR_045722: AD flight rules timesheets alignment to AIXM**
   - AD flight rules timesheets alignment to AIXM.
   - The CACD AD flight rules data model will be adapted and aligned to AIXM to become compatible with timesheet expressions from EAD. Timesheet with expressions like “from SR -10 till SS+30 or 17:00UTC whichever is the earliest” will be acceptable.
   - This will enable the upload of AD flight rules unsupported in NM23.0.
   - SR/SS and derived more complex time schedule expressions will be correctly reflected in CACD. The AD VFR restrictions will thus be more precise.
   - Mixed VFR/IFR FPLs to ADs with a VFR constraint will be validated correctly taking SR/SS and derived complex time schedule expressions into account.

Impact for external users:
I3. Impact on clients’ systems.

3.7 FB1010: FF-ICE filing Function - file eFPL

(1) The FB1010 implements features that couldn’t be addressed with the initial FF-ICE Filing Service deployment in NM23.0. It is an incremental step towards closer alignment with the FF-ICE Filing service specification.

(2) The following list provides the topics to be addressed in NM23.5:
   • Support structured route elements (i.e. without trajectory);
   • Support mixed rule (VFR/IFR) flight plans in the structured route/trajectory elements.

(3) External users choosing to use the FIXM services will have to adapt their systems to provide FPLs in FIXM format.

(4) FB1010 is planned to be part of the NM Release OPT (Operational Testing Session) on PREOPS.

Impact for external users:
I1. Impact on procedures
I3. Impact on clients’ systems

3.8 FB1044: FRA Improvements

(1) With this FB, NM will create NPZ (No Planning Zone) to reject FPLs filing through volumes where no flight are accepted.
   NPZ will protect operationally sensitive areas
   NPZ, a new type of RSA will be used in Restrictions to invalidate filing of FPL through these “No Planning Zones”.

(2) A new sub-type of RSA named “NPZ” will be created.

Impact for external users:
I3. Impact on clients’ systems.

3.9 FB942: AURA@n-CONECT and RAD@n-CONECT.

(1) The objective of the FB is to deliver the first operational version of the RAD@n-CONECT application

(2) The RAD@n-CONECT application will:
   • Enable NRCs (National RAD Coordinator) to elaborate, create, modify and delete restrictions intended to maximise capacity and reduce complexity organising the traffic into specific flows.
   • Enable RAD Team to measure impact of the proposed restrictions, possibly elaborate alternatives, coordinate with the other NRC, validate and published.
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• Support NRCs, LRCs (Local RAD Coordinators) and NMOC in the collaborative
decision making process for the negotiation and the validation of the proposed
restrictions.

(3) The application will provide the following benefits:
• Support the elaboration, early sharing, integration and traceability without manual
effort of all restrictions in a single place as well as support the automation of the RAD
generation and consolidation through the NOP Portal.
• Facilitate early discovery of RAD incompatibilities between countries by cross-
checking (NRC and NM) on cleansed and standardized data.
• Provide secure access to information by an access control.
• Support information sharing accessible to all as soon as is available or published by
monitoring and notifications.
• Improve integrated CDM (Collaborative Decision Making) process between NM and
the Operational Stakeholders by chat with specialised topics and restricted actors.
• Improve quality and efficiency by a rich restriction querying.

(4) In order to achieve these benefits, the main features of the application are the
following:
• Easy overview of the existing restrictions.
• Creation, update, deletion of restriction by queries and searches.
• Saved queries of restrictions.
• Collaboration and approval workflow which will ease between NMOC and the NRCs.
• Collaboration and approval workflow which will ease between LRCs and the NRCs.
• Unified grammar for restriction creation, update and removal to describe restrictions
on standardised way with built-in sanity checks for semantical syntactical errors.
• Support to cyclic and periodic restrictions.
• Notification about changes.
• Possibility to subscribe to restriction changes.
• History and traceability to changes of restrictions.
• Compare and highlight features of changes.
• Airspace object validation against CACD.
• Online help.

(5) The RAD@n-CONECT application will be accessed by the users using a specific URL.

(6) External users shall establish Operational procedures while changing the how a RAD
restrictions will be established or updated, and alongside coordinated with NMOC.

(7) The new RAD@n-CONECT application will run in a browser-based environment and
require connection to internet to get access to NM systems.

Impact for external users:

I1. Impact on procedures.

3.10 FB943: [n-CONECT] Airspace

(1) Objective of the FB is to replace the CIREN application (CHMI for ENV Coordinators)
(2) This FB will provide a replacement for the CIREN application with a browser-based
functionally equivalent and a new map component.
Please note that the HMI delivered by the n-CONECT programme does not work with Internet Explorer; for this HMI, NM recommend Chrome or FireFox.

(3) FB943 provides a new application (named “Airspace”) functionally equivalent to CIREN but with a new User Interface (UI), more modern and more user friendly. This application does not require client side installation, just a browser access via internet or PENS.

(4) Initially all current CIREN users are invited to use the new Airspace application while the CHMI CIREN will be available until NM24.0. After this period all CIREN users shall use operationally the new application.

(5) Other users who are accessing Airspace read-only data such as CIFLO or CIAO users will have access as from NM24.0 to Airspace data through an embedded instance of the new Airspace application into the CIFLO, CITO and CIAO.

(6) CIREN CHMI will be phased out in NM24.5.

(7) Note: CIFLO, CITO and CIAO users will continue to use their application and the embedding of the FB943 into CIFLO, CITO, and CIAO is expected from NM24.5 onwards.

Impact for external users:


### 3.11 FB1020: Flight Planning Domain improvements

(1) Objectives of FB1020 are to:

- Facilitate sustainable IFPS operations;
- Automate unnecessary work;
- Contribute to NM Flight Planning Service evolution

(2) IFPS will NOT raise an error when the filed Alternate Aerodrome (ALTN) matches the filed Destination Aerodrome (ADES).

(3) A FPL that used to be rejected when filing an ALTN that is the same as the ADES will no longer be rejected.

Impact for external users:

I1. Impact on procedures.

### 3.12 FB1021: Airspace Data Domain improvements

(1) FB1021 will bring the following changes:

- Allow adequate testing of disabled Restrictions with dependent applicability hence not impacting OPS proceedings.
- Allow an ATC Unit to control more than one airspace. Hence, avoid the creation of dummy units that loop messages to the main one. This will subsequently simplify the addressing.
- Rename the DCT restrictions according to a naming convention which is easy recognizable
(2) No impact on External users except that about 3000 Aerodrome DCT restrictions will be renamed in one go.

New rules for Aerodrome DCT Restrictions identifiers are:

• AAAA+5A (e.g. EHAM5A) • AAAA+5D (e.g. LBSF5D)

With AAAA = AD ICAO identifier, 5A for Arrivals, 5D for Departures

Impact for external users:
None

### 3.13 FB1022: ATFCM Domain improvements

(1) Objective: Improvement of existing ATFCM services.

(2) CR_043915: Processing FURTHRTE points as DCTs
Consecutives points received in the FURTHRTE field of an FSA message will be connected as a direct segment.

No impact on external systems. This CR contributes to the predictability improvement.

(it will not be part of the presentation to externals).

(3) CR_043106: STAR information to be processed if received in FSA_PT
The STAR information is provided by some ANSPs in their en-route FSA message. After validation, this information will be used to update the airborne flight trajectory.

No impact on the external systems. This CR contributes to the predictability improvement. (it will not be part of the presentation to externals).

(4) CR_045516: OPLOG available for all flights in ETFMS
OPLOG will be retrievable for any flight loaded in ETFMS.

Impact for external users

I1. Impact on procedures.
I3. Impact on clients’ systems.

### 3.14 FB1023: IFPS Workload Evolution

(1) Improve the NM B2B flight plan filing experience by enhancing the current AOWIR and flight plan validation services and introducing IFPS Operational Replies via P/S (Publish/Subscribe)

(2) CR_046606: B2B - subscribe to IFPS message processing status
This CR introduces ORM (Operational Reply Messages) via B2B Publish/Subscribe paradigm. This will support users that are currently filing flight plans via AFTN/SITA networks and at the same time are building new software applications that connect to NM B2B but not to AFTN/SITA.

(3) CR_045717: AOWIR / IFPUV enhancements via B2B
This CR enhances the AOWIR (Aircraft Operator What-If Rerouting) and flight plan validation services by providing as output the CTOT (Calculated Take-Off Time) and last validity period (before the route becomes invalid).

(4) FB1023 will be available on B2B PREOPS environment around 4 weeks before OPS deployment
Impact for external users

I3. Impact on clients’ systems.

3.15 FB1029: e-Helpdesk - NOM evolution

(1) Some ANSPs operate with partial delegation of e-Helpdesk request management of TWR to FMP because of operational reasons. This remains part the local/national ANSP agreements between TWRs and FMPs.

(2) The FMPs acting on behalf of TWRs, due to application constraints, had to request especial access to the application and to operate with more than one application instance. This NM23.0 set-up allowed them to operate as FMP and as a delegated TWR.

(3) Due to understandable operational complexity and unnecessary overhead, FMPs expressed the difficulties of the use of multiple tokens or client application instances for that delegation.

(4) This problem hampers the widespread use of e-Helpdesk and therefore the move from telephone coordination to electronic coordination.

(5) The aforementioned limitation is not reduced to role-based authorisation and playing roles because:
   • For operational reasons the roles and locations determine different business rules that apply based on the procedures applicable to e.g. FMP, A-CDM (TWR), Adv TWR, non CDM.
   • For post-ops reasons and best practices, NOM needs to be able to distinguish between an FMP e-Helpdesk request for FMP reasons and for TWR reasons [see above]. There is a need to evaluate the shift from telephone and the level of usage of each unit and operational role, independently.
   • NOM wishes to keep control on what TWR(s) an FMP can impersonate e.g. not having Barcelona FMP impersonating the Oslo TWR

(6) The improvements proposed in this functional block will allow the FMPs to operate as ‘delegated TWRs’ via e-Helpdesk application and for each individual e-Helpdesk request.

(7) The change will permit to ‘delegated FMPs’ by using one single application instance:
   • To determine for each request the operational unit (FMP, TWR-CDM, TWR-non CDM).
   • To update the delegation units by an environment data update.

(8) The change will allow to keep control and transparency on the delegation rules and to reduce the operational complexity of the application.

(9) More generally, the change will allow:
   • An FMP to impersonate zero, one or more TWR.
   • An FMP to impersonate any kind of TWR: A-CDM, Advanced or Standard
   • To trace a list of TWR delegators given the FMP ANU id found in CACD (Units).

(10) An FMP to input the optional delegator TWR (ANU id), for each request that requires it.

(11) The changes will be visible in e-Helpdesk application as follows:
   • A drop-box feature will be available to the FMPs presenting the TWR (s) that could have delegated the e-Helpdesk function to them.
• Two new columns will appear in e-Helpdesk tables: delegator type and ANU id
• Two new fields in e-Helpdesk details.
• The e-Helpdesk business rules depending on the originator will be updated using the delegator data if exists

Impact for external users

3.16 FB1038: Flight efficiency - Enhance GRRT

1) CR_045730: Add avoid MPR constraint
   GRRT will be able to avoid the Most Penalizing Regulation (MPR).
2) CR_045731: Avoid proposing the same route
   GRRT shall indicate opportunity / send RRP only if ITEM15 content of the proposed route is different from the original route.
3) CR_045734: TP selection
   GRRT will improve SID/STAR selection.
4) For additional information, please contact nm.flightefficiencysupport@eurocontrol.int

Impact for external users
I2. Impact on Human-Machine interface

3.17 Isolated CR

CR_046926 Check box to plot restriction when plotting in CHMI
Display restrictions in the External ATFCM vertical view

RATIONALE:
Today PTR (profile tuning restriction) information is missing from the vertical view of the External ATFCM CHMI.
Plotting on the vertical view will slow down considerably if restrictions needs to be displayed.
This can take up to 30 seconds.
The user can now enable in the CHMI preferences ATFCM restrictions as an option to display restrictions.
By default, this selection will be set to not display restrictions in order to avoid timing degradation for the non-impacted users.
In the External ATFCM CHMI, the user will have to select manually when this function is needed.
The selection box will be de-selected by default.
To enable the selection the External ATFCM CHMI user shall select the CHMI application preferences icon in the CHMI menu and select
MAP application ⇒ Vertical View ⇒ Show restrictions ATFCM
It is expected that with the restrictions selected, the vertical view can take up to 30 seconds per regulation to display all the restriction data to the user.
With the option de-selected there will be no degradation in the timing of the generation/display of the vertical view to the user.
CR_039216 (Acceptance of TTOT of ATC-DPI slightly outside STW)

An A-DPI message without DEPSTATUS TWRUPDATE field is sent by the A-CDM system when the flight actually departed from the block, and statistics have shown that the TTOT in the message is an accurate estimation of the take-off time when the flight is not regulated or when the TTOT is inside or after the STW. Reflecting this TTOT in the traffic load will improve predictability.

When the TTOT is before the STW for a regulated flight, statistics have shown that the aircraft is more likely to take-off at the start of the STW. This is because the tower may ask the pilot to leave the block earlier in order to free the stand for an arriving aircraft. In such situations, the departing aircraft will usually wait on a remote position until it is allowed to taxi, with as target take-off time the start of the STW.

An A-DPI message with DEPSTATUS TWRUPDATE field is a CTOT extension request and is subject to special processing when received for a regulated flight and with TTOT after the Slot Tolerance Window.

3.18 Incidents with external impact

I2_116122: IFPS/ETFMS messages with invalid characters

The IFPS/ETFMS errors being output are not consistent with the ADEXP Standard or the IFPS Dictionary of messages (DOM). This results in the invalid characters being changed to ‘?’ by NM systems for the Type-B output (SITA and ARINC). To solve this issue, IFPS will stop using the invalid characters.

The invalid characters are used in IFPS Reject (REJ) messages as well as ETFMS Flight Suspension Messages (FLS).

The changes that have been made:
- “_” to “ “ (underscore to space)
- “|” to “’” (vertical bar to single quote)
- “[ ]” to “()” (brackets to parentheses)
- “`” to “’” (backquote to single quote)
- “;” to “:” (semicolon to colon)
- “>” to “GREATER THAN”
- “%” to “PERCENT”

Some example of the old and new IFPS error messages:
Old: TTL_EET DIFFERENCE > 40%
New: TTL EET DIFFERENCE GREATER THAN 40 PERCENT

Old: ERROR PROF205: RS: TRAFFIC VIA ZUE ARGAX Z170 KUDIS IS OFF MANDATORY ROUTE REF:{EDLS1012A } T163 SONOM LADOL
New: ERROR PROF205: RS: TRAFFIC VIA ZUE ARGAX Z170 KUDIS IS OFF MANDATORY ROUTE REF:{(EDLS1012A) T163 SONOM LADOL}
Systems that receive IFPS reject messages and/or ETFMS FLS messages may experience problems with the format change.

Hyperlink toward the NM activity(ies), service(s) and product(s) that will be impacted by this change. The global catalogue is available at the following address: www.eurocontrol.int/service-catalogue

Please choose the service(s) and product(s) in the list below:
- B9-3 Network Manager Business-to-business (B2B) web services
- B9-2 Network Operations Portal
- B9-1 Collaboration Human Machine Interface
- B2-2 Flight plan filing and management
- B1-2 Airspace data

**I2_117070: IFPS accepts IFR as requested cruising level**

Stop IFPS accepting IFR as requested cruising level

IFPS currently accepts and outputs the three letter indicator IFR as a requested cruising level within filed flight plans. That is not compliant with the ICAO Doc 4444 specifications for the content of a filed flight plan. With the NM23.5 release, IFPS will invalidate such a filing returning the error:

SYN101: INVALID LEVEL DESIGNATOR.

Example of an incorrect filing:

(FPL-WOOPS-ZG
-SR22/L-SDFGY/S
-EKYT1300
-N0150F070 DCT AAL/N0150IFR DCT KOR/N0120VFR DCT BORUP DCT
-EKRK0100 EKOD
-0)

Technical or operational impact the change may have on the external users.

**I3. Impact on clients’ systems.**

Hyperlink toward the NM activity(ies), service(s) and product(s) that will be impacted by this change. The global catalogue is available at the following address: www.eurocontrol.int/service-catalogue

Please choose the service(s) and product(s) in the list below:
- B2-2 Flight plan filing and management

### 3.19 Testing of the CHMI

#### 3.19.1 Important remarks

To avoid confusion between the operational CHMI version and the test version, the numbering will be different.
15.5.4 for the Operational version
15.5.3 for the external OPT version only

3.19.2 For NM-managed PC

(1) No registration is required.
(1) The OPT CHMI will be pushed on the PC between 06/08/2019 & 14/08/2019 22h00 UTC (standard maintenance window).
(1) As from the 02/09/2019 (10:00 UTC - start of the OPT session), to use the CHMI-OPT, please navigate through the Windows Start menu and launch:
Start->All Programs->NM Applications-> CHMI 15.5.3 via External-OPT
(2) Read carefully the warning message (“You have selected the OPTTEST SATI shortcut […]”) and type “Y” and ENTER-key if you agree.
(3) A second warning pop-up message will be displayed (“This CHMI version is for TEST and TRAINING purposes […]”). Click “Continue” if you agree.

The second warning will be available only when the end-user has downloaded all the available patches and after a CHMI restart.

Figure 1: Second warning message

(4) Log-in with your userID and token.
(5) After a successful authentication, you will be connected to the OPT environment.

3.19.3 For non NM-managed PC

(6) No registration is required.
(7) You need to install the CHMI first; installation documentation will be available as from the 14/08/2019:
http://www.nm.eurocontrol.int/chmi_appsoft/NM_23.5/chmi/15.5.3/chmiaoinst15.5.3.pdf
Please pay attention to the new link.

(8) Download and installation can be done as from the as from the 15/08/2019 at 10:00 UTC but access to the CHMI-OPT will be available only as from the 02/09/2019 (10:00 UTC - start of the OPT session).

(9) As from the 02/09/2019 (10:00 UTC - start of the OPT session), to use the CHMI-OPT, please navigate through the Windows Start menu and launch:
Start->All Programs->NM Applications-> CHMI 15.5.3 via External-OPT
(10) Read carefully the warning message (“You have selected the OPTTEST SATI shortcut […]”) and type “Y” and ENTER-key if you agree.
(11) Log-in with your userID and token.
(12) After a successful authentication, you will be connected to the OPT environment.

3.19.4 Check of the environment (OPT/OPS) used by the CHMI

(13) To ensure that you are connected to the CHMI-OPT environment, check the “SAT/I” reference in the ATFCM Information window and in the CHMI title bar.

Figure 2: CHMI in OPT environment
3.20 Testing of the NOP Portal

(14) No registration is required.
(15) As from the 02/09/2019 (10:00 UTC - start of the OPT session), please use the following URL to test the NOP Portal-OPT:
https://www.test1.nm.eurocontrol.int/PORTAL/gateway/spec/index.html
(16) Log-in with your userID and token.
(17) After a successful authentication, you will be connected to the OPT environment.
(18) To ensure that you are connected to the NOP Portal-OPT environment, check the “SAT/I” reference, under Network Headline News;

3.21 Testing of the NM B2B Services

(19) No registration is required. NM23.5 B2B Pre-ops platform will be available as from 24/09/2019 14:00 UTC.
(20) Draft documentation for NM23.5 preops will be available (in pdf and HTML format) in a dedicated folder containing “NM23.5” in its title on the OneSkyTeam web site:
https://ost.eurocontrol.int/sites/B2BWS/Shared%20Documents/Forms/AllItems.aspx

3.22 TP1 access during External OPT

3.22.1 General

(1) During the External OPT exercise, external customers will be able to access the ENVPREVAL.SAT environment (TP1 chain).
3.22.2 NOP Portal

(1) ENVPREVAL.SAT NOP Portal can be accessed via url

(2) RSA Token and userid must be used to log in.

3.22.3 CHMI

3.22.3.1 NM Managed PC

(1) The CHMI will be installed on the PC before the External OPT starts.

(2) During the External OPT, please navigate through the Windows Start menu and launch:
Start->All Programs->NM Applications->OPSTEST-CHMI ENVPREVAL.SAT 15.0.4 via Extranet

(3) RSA Token and userid must be used to log in.

3.22.3.2 Non NM-managed PC

(1) You need to download and install the CHMI first.

(2) During the External OPT, the ENVPREVAL.SAT can be access as below:

For Windows 10 64 bits
\texttt{c:\Program Files (x86)\Eurocontrol\NM Applications\15.0.4\bin\chmi\run\CHMI\15.0.4\ENVPREVAL.SAT\via\test1sc.bat}

For Windows 10 32 bits
\texttt{c:\Program Files\Eurocontrol\NM Applications\15.0.4\bin\chmi\run\CHMI\15.0.4\ENVPREVAL.SAT\via\test1sc.bat}

RSA Token and userid must be used to log in.

3.22.4 B2B

(1) The ENVPREVAL.SAT environment can be accessed via a dedicated url.

(2) The authentication must be done with the \texttt{PREOPS} certificate.

(3) Only requests related to the download of AIXMDatasets and Flight Plan Validation and Route Generation are allowed.

Url to access ENVPREVAL.SAT: https://www.b2b.test1.nm.eurocontrol.int/B2B_TP1/gateway/spec/mm.nn/
4 How to participate

The testing session will take place **weekdays** from the 02/09/2019 to the 04/10/2019

4.1 Messages exchange

(1) If you want to receive a message exchange between systems via AFTN or SITA for TACT IFPS please send registration form on §9 with the following information to nm.opt@eurocontrol.int

(2)

a) Full Name  
b) Company/Organisation  
c) Business Email Address  
d) Phone Number  
e) Token number (like p0abc) (if applicable)  
f) Indicate the address from which you will send messages to the IFPS/ETFMS Test system

Note: If this address is your operational address, then double ORMs will be received for all Operational messages (as these are copied to the IFPS test system). Care should be taken to ensure that the ORMs from the IFPS/ETFMS test system are NOT used operationally.

4.2 Test message exchange on OPT

(1) Go to the Internet (NM Portal) - Test platform) to connect to IFPUV: https://www.public.test1.nm.eurocontrol.int/PUBPORTAL/gateway/spec/index.html

(2) The IFPUV is on the lower right hand side of the portal

Note: depending upon your browser settings the IFPUV application may not appear, particularly if you are using Internet Explorer versions 8 & 9. If this happens you will need to enable ‘Compatibility mode’, via the ‘Tools’ tab of your browser, and then re-start your browser session. If this does not resolve the problem please contact the NM Technical Helpdesk at: +32 2 7451997

![Flight Plan Management](image)

The Network Manager Flight Planning area provides a flight plan validation service as well as a route finding service for secure access users.

**Flight Planning Tools:**

- Free Text Editor
- Structured Editor
- Contacts and Support
- Flight Planning Documentation

![IFPUV in the NOP](image)

(3) NOP AFTN Address: EUCHZMFV
(4) NOP SITA Address: BRUEY7X
(5) OPT participants that wish to communicate with the NM via the AFTN/SITA test platforms must ensure that they communicate to NM the AFTN/SITA test address that will be used to receive messages sent by IFPS/ETFMS.
(6) Test messages may be sent directly to the Acceptance test systems using the following addresses:

**IFPS Test**

- AFTN: EUCHZMFT
- SITA: ANREP7X

**ETFMS**

- AFTN: EUCHZMTT
- SITA: ANREA7X
5 Participant Configuration & Setup

(1) The settings described below will be automatically maintained over AIRAC cycles and will therefore last until the end of all OPT testing or until otherwise modified in accordance with the registration data provided for a subsequent OPT session.

5.2 Participant Address Data

(1) Participants to the OPT testing sessions can provide, via mail to nm.opt@eurocontrol.int, an indication of:
   a)  For flight plan originators (Aircraft Operators, AROs, CFSPs):
      i)  The address from which test flight plans will be sent to IFPS;
      ii) Willingness to receive the resultant ACK, MAN, REJ at the address specified under 1 above;
   b)  For ATC Units:
      i)  The operational unit or entity for which messages are requested to be received e.g. Amsterdam ACC, Brussels TWR, etc.
      ii) The test address to be used i.e. the test address that IFPS will assign to the unit specified

(2) Details should be sent via the registration process described.

5.3 Outside IFPS area

(1) ANSPs located outside the IFPS area of operations and flight plan originators (Aircraft Operators, Flight Plan Service Providers, and AROs) can participate in the exchange of flight plan data. The only constraint is that the flights must have at least one portion of route within the IFPS area of operations.
6 OPERATIONAL TESTING (OPT)

(1) On-line testing via normal networks: using the dedicated NM test platform which will be supported by the SAT test team.

(2) The OPT test sessions enable the complete suite of messages (FPL, CHG, CNL, DEP, DLA, RQP, RQS, AFP, APL, ACH, ACK, MAN, REJ) to be tested involving both flight plan originators (AOs, AROs, CFSPs) and ATS units (ACCs, UACs, APPs, TWRs, AROs).

6.2 Messages stored within the Test platform

(1) The test platform is a mirror of the operational platform. The system has a copy of the ops feed however there will be limited manual processing of messages on the test platform so the ops database and the test platform database will not be fully aligned. Since the automatic pass rate is above 90% the Test platform database will still have a high volume of flights. For information on manual processing please see section 6.5.

6.3 Non-EUR Participation

6.3.1 Flight Plan Originators / Aircraft Operators

(1) Flight Plan originators not normally operating into the IFPS or European region can participate but should be aware of the following:
   a) flight plans must contain at least one portion of the route within the IFPS area of operation;
   b) the result of the IFPS processing of each test message is provided via the appropriate ACK, MAN or REJ messages (see the IFPS User Manual for details) and will be returned to the address from which the test message was received.

6.3.2 ANSPs / ATC Units

(1) An ANSP or ATC Unit located outside the IFPS area of operation can participate to an OPT session however in order to ensure that IFPS will send the resultant message to the unit concerned the test flight plan data must be submitted making use of the ‘Re-addressing’ feature of IFPS.
For example: If Hong Kong ATC wishes to participate, using the test address 'VHHHZQZT' they should ensure test FPLs are submitted such as:

FF EUCHZMFT  ← IFPS test address
AD VHHHZQZT ← Hong Kong test address provided via re-addressing mechanism
(FPL-VHH01XX-IS) ← callsign using 'XX' to identify it as a test message
-B744/H-SXDE1GHIJ4J5RWYZ/SB2 ← 'New' format
-EGLL1125 ← relevant to IFPS
-N0480F310 BPK7F BPK M185 CLN UL620 ARNEM UP147 RKN UL980
PENEL UM994 DENKO UN858 OSKUD/N0488F330 UN858 LAVAR UM874
ASKIL/K0902S1010 B102 UK R11 FV G3 AL B365 BK B923
GUTAN/K0888S1010 A368 URL G3 AKB A360 NALIK/K0880S1110 A360
ERULA/K0883S1130 A360 REVKI A460 KCA L888 SADAN Y1 OMBON B330
POU R473 SIERA
-VHHH1110 ZGSZ
-PBN/B2B3B4B5L1D2D3D4 NAV/RNVD1E2A1 EET/EHAA0021 EDVV0041 EDUU0100
EPWW0115 EYVL0154 UMMV0205 UWV0228 UWPP0318 UWWW0340 UATT0359
UACC0454 UAAA0538 ZWUQ0633 ZLHW0732 ZPKM0851 ZGZU0957 VHHK1043
SEL/ADHJ REG/BHOT)

(2) To assist with the creation of test messages which are relevant to the ATC unit concerned, it is highly recommended that an ATC unit participates together with its local Aircraft Operators and/or ARO.

(3) It should however be noted that:
   a) Flight plans must contain at least one portion of the route within the IFPS area of operation;
   b) The result of the IFPS processing of each test message is provided via the appropriate ACK, MAN or REJ messages (see the IFPS User Manual for details) and will be returned to the address from which the test message was received. If these messages are not needed or cannot be received this must be indicated via the Registration Form.
6.4 Test Flight Plans Identification

(1) Test flight plans should be clearly identifiable so that IFPS Operators and recipient addressees can quickly identify them as such and identify their source.

(2) It is strongly recommended that the callsign is modified to reflect the test nature of the message and the test participant. The following logic is proposed:

firstly: ICAO three letter designator of the AO or a three letter designator that is not one of the ones already allocated by ICAO (see ICAO Doc 8585) for an ATS participant (ARO)

followed by: a two digit reference number

followed by: the letters 'XX'

E.g.

DLH01XX 01st test FPL from Lufthansa
DDW14XX 14th test FPL from ARO Bremen

(3) By following this rule test messages should not accidentally associate to either operational messages copied from the operational system or to other test messages.

6.5 Test Purpose Indication

(1) It is highly recommended that an indication is made in Field 18 of the feature being tested e.g. RMK/PBN TEST or RMK/ SYNTAX TEST. This will assist the Test Team, who will be monitoring the invalid queue of messages, to know whether a particular error may be integral to the test or whether it is irrelevant to the test and could therefore be manually corrected.

6.6 Manual Message Processing

(1) The IFPS test system will not be manned to the same level as the operational system. SAT Testers will give priority to the treatment of test messages, identified by the call sign.

(2) SAT Testers will reject the message when an error is encountered which is considered to be the main purpose of the test but will correct any other errors considered to be incidental. In this way the originator of the message can 'see' the system reaction through the error message received.

(3) It should be noted that IFPO correction logic will, therefore, not be the same as under operational conditions. Telephone co-ordination will not normally be initiated and more manual rejections will result.

6.7 IFPS Output

(1) The distribution of messages by IFPS (ACK, MAN, REJ to flight plan originators and FPL, CHG, etc. messages to ATC units) shall be limited to those having indicated their willingness to participate in the testing through completion of the registration process.

(2) Participants shall consider all messages that carry the IFPS test address (EUCHZMFT) as originator as having a non-operational status.

6.8 Support during OPT Sessions

(1) Test participants may contact the SAT Testers (Test Team) during a test session for assistance when needed. As the Test Team may be very busy participants are encouraged to resolve their issues and only contact the Test Team as a last resort, for example, when several corrections and re-submissions fail to provide the desired
result. If you find an issue you cannot resolve the please contact the SAT team via nm.opt@eurocontrol.int

6.9 Contacts during the OPT

(1) Technical issues during the OPT:
During the OPT, if you have technical issues, please contact the NM Customer Service Desk and System Operation (CSO).

Important: Please mention that your issue concerns the OPT environment.

a) Telephone: +32 2 745 19 97
b) Fax: +32 2 729 90 23
c) eMail: NM.cso.help-desk@eurocontrol.int

(2) For Airspace structure and airspace availability B2B services tests:

a) System Acceptance Test B2B tester: Peter Ralston
b) E-mail: peter.ralston@eurocontrol.int
c) Telephone: +32 2 729 51 81

(3) Any other testing issues related queries and requests:

a) System Acceptance Test Manager: Gerard Mulholland
b) E-Mail: nm.opt@eurocontrol.int,
c) Telephone: +32 2 729 97 85

6.10 Important notifications related to NM23.5

6.10.1 NM23.5 - Browsers and Operating Systems compatibility

- **Browsers recommended in NM23.5:**
  - The n-CONECT HMI does not work with Internet Explorer; for this HMI, NM recommends Chrome or Firefox.
  - For other NM services, NM recommends:
    - FireFox,
    - Chrome,
    - Edge.
  - For these recommended browser brands, NM undertakes to investigate and attempt to resolve problems that can be reproduced on the latest stable version of that brand. (Anything else is on a “best efforts” basis.)
  - Internet Explorer 11 is still supported but no longer recommended as it is the intention to stop supporting it by NM24.0 (2020).

- **NM23.5 - Operating Systems compatibility**
  - For NM release 23.5, the recommended operating system is Windows 10; Windows 7 will also be supported.

- **NM23.5 - NM B2B web service:**
  - **NM23.5 - NM B2B: Unavailability of version NM20.5**
  As a consequence, NM21.5 will no more be available (OPS and PREOPS) after NM23.5 migration.
7 Documentation

<table>
<thead>
<tr>
<th>Resource</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Operations library</td>
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</tr>
<tr>
<td></td>
<td>Registration required - contact <a href="mailto:NM.servicerequests@eurocontrol.int">NM.servicerequests@eurocontrol.int</a></td>
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<tr>
<td></td>
<td>Flight Plan guide: <a href="https://contentzone.eurocontrol.int/fpl/default.aspx">https://contentzone.eurocontrol.int/fpl/default.aspx</a></td>
</tr>
<tr>
<td>NMIR Users Guide</td>
<td><a href="https://www.eurocontrol.int/publication/nmir-users-guide">https://www.eurocontrol.int/publication/nmir-users-guide</a></td>
</tr>
</tbody>
</table>
8 Suggested Scenarios

(1) The following scenarios are not exhaustive and are designed to give you a starting point from which to test the new functionality contained in the upcoming release.

(2) The scenarios may be updated before the OPT commences.

8.1 FB1024: ASM - Advanced FUA process improvements

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Description</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB1024: ASM - Advanced FUA process improvements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR_044037: Alert for P3 request</td>
<td>In the case of P3 (Procedure 3) requests, the AMC should advise NM on the unplanned activation of airspace to allow impact assessment by NM. Currently, this request is communicated manually between AMC and NM (MILO). This change request will introduce a warning for P3 requests inside the UUP in CIAM. A flag for P3 request will be provided via NM B2B to AMCs using ASM tools interoperable via B2B with NM..</td>
<td>CIAM users: • Highlights the UUP containing P3 request(s) in the AUP/UUP list display • Highlights the individual P3 request(s) in the Overview tab of the UUP display. NM B2B users: returns P3 request(s) flag(s).</td>
</tr>
</tbody>
</table>

8.2 FB1030: API improvements

<table>
<thead>
<tr>
<th>FB1030: API improvements</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The operational objective is to fully integrate airports into the network on the basis of linking the Network Operation Plan with the Airport Operation Plans (AOP/NOP). This iteration concentrates upon enhancing the airport arrival planning services through exchange of arrival planning information.</td>
<td>Sizing of the NM B2B service thresholds in accordance with the needs of AOP/NOP integration experiences • Enhancement of Network Cherry Pick Regulation service requests to support needs of Arrival Planning Information processes e.g. regulation updates and regulation sub periods • Provision of correction and tuning exposed by the SESAR PJ24 and PJ25 trials</td>
<td>The external systems need to take careful note of the NM B2B thresholds and the principles of use. These are explained in the current NOP/B2B Reference Manuals – (Essentials manual). Serial connection is expected AND respect of the NM B2B thresholds is essential if service requests rejection is to be avoided. The arrival planning information (API) measures require a Network Cherry Pick measure. The proposal for creating these via B2B is</td>
</tr>
</tbody>
</table>
enhanced with added flexibility to update these according to the evolving airport and network situation. There are new fields that can be exploited by the client. The PJ24 and PJ25 enhancements are not defined in this addition.

### 8.3 FB1016: NM airspace data model evolution

<table>
<thead>
<tr>
<th><strong>FB1016: NM airspace data model evolution</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>With the FB1016, NM will align the CACD Arrival Procedures (AP) data model to cover the AIXM STAR and IAP concepts (STAR and IAP being connected to each other at the IAF).</td>
</tr>
</tbody>
</table>
### 8.4 FB1036: CASTAR improvements

<table>
<thead>
<tr>
<th>CR_045722: AD flight rules timesheets alignment to AIXM</th>
</tr>
</thead>
<tbody>
<tr>
<td>The CACD AD flight rules data model will be adapted and aligned to AIXM to become compatible with timesheet expressions from EAD. Timesheet with expressions like &quot;from SR - 10 till SS+30 or 17:00UTC whichever is the earliest&quot; will be acceptable. This will enable the upload of AD flight rules unsupported in NM23.0.</td>
</tr>
<tr>
<td>SR/SS and derived more complex time schedule expressions will be correctly reflected in CACD. The AD VFR restrictions will thus be more precise. Mixed VFR/IFR FPLs to ADs with a VFR constraint will be validated correctly taking SR/SS and derived complex time schedule expressions into account.</td>
</tr>
</tbody>
</table>

---

### 8.5 FB1010: FF-ICE filing Function - file eFPL

<table>
<thead>
<tr>
<th>The following list provides the topics to be addressed in NM23.5: • Support structured route elements (i.e. without trajectory); • Support mixed rule (VFR/IFR) flight plans in the structured route/trajectory elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>External users choosing to use the FIXM services will have to adapt their systems to provide FPLs in FIXM format. FB1010 is planned to be part of the NM Release OPT (Operational Testing Session) on PREOPS.</td>
</tr>
</tbody>
</table>

---
### 8.6 FB1044: FRA Improvements

<table>
<thead>
<tr>
<th>FB1044: FRA Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>With this FB, NM will create NPZ (No Planning Zone) to reject FPLs filing through volumes where no flight are accepted. NPZ will protect operationally sensitive areas.</td>
</tr>
<tr>
<td>NPZ, a new type of RSA will be used in Restrictions to invalidate filing of FPL through these “No Planning Zones”.</td>
</tr>
</tbody>
</table>

### 8.7 FB942: AURA@n-CONECT and RAD@n-CONECT

<table>
<thead>
<tr>
<th>FB942: AURA@n-CONECT and RAD@n-CONECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>The objective of the FB is to deliver the first operational version of the RAD@n-CONECT application.</td>
</tr>
<tr>
<td>Enable RAD Team to measure impact of the proposed restrictions, possibly elaborate alternatives, coordinate with the other NRC, validate and published.</td>
</tr>
<tr>
<td>Support NRCs, LRCs (Local RAD Coordinators) and NMOC in the collaborative decision making process for the negotiation and the validation of the proposed restrictions.</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Support the elaboration, early sharing, integration and traceability without manual effort of all restrictions in a single place as well as support the automation of the RAD generation and consolidation through the NOP Portal.</td>
</tr>
<tr>
<td>Facilitate early discovery of RAD incompatibilities between countries by crosschecking (NRC and NM) on cleansed and standardized data.</td>
</tr>
<tr>
<td>Support information sharing accessible to all as soon as is available or published by monitoring and notifications</td>
</tr>
<tr>
<td>Improve quality and efficiency by a rich restriction querying.</td>
</tr>
<tr>
<td>Application will have help function</td>
</tr>
</tbody>
</table>
8.8 FB943: [n-CONECT] Airspace

<table>
<thead>
<tr>
<th>Objective of the FB is to replace the CIREN application (CHMI for ENV Coordinators)</th>
<th>FB943 provides a new application (named &quot;Airspace&quot;) functionally equivalent to CIREN but with a new User Interface (UI), more modern and more user friendly. This application does not require client side installation, just a browser access via internet or PENS. Initially all current CIREN users are invited to use the new Airspace application while the CHMI CIREN will be available until NM24.0. After this period all CIREN users shall use operationally the new application. Other users who are accessing Airspace read-only data such as CIFLO or CIAO users will have access as from NM24.0 to Airspace data through an embedded instance of the new Airspace application into the CIFLO, CITO and CIAO. CIREN CHMI will be phased out in NM24.5. Note: CIFLO, CITO and CIAO users will continue to use their application and the embedding of the FB943 into CIFLO, CITO, and CIAO is expected from NM24.5 onwards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>This FB will provide a replacement for the CIREN application with a browser-based functionally equivalent and a new map component. Please note that the HMI delivered by the n-CONECT programme does not work with Internet Explorer; for this HMI, NM recommend Chrome or FireFox</td>
<td></td>
</tr>
</tbody>
</table>
### 8.9 FB1020: Flight Planning Domain improvements

<table>
<thead>
<tr>
<th>Objectives of FB1020 are to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Facilitate sustainable IFPS operations</td>
</tr>
<tr>
<td>• Automate unnecessary work</td>
</tr>
<tr>
<td>• Contribute to NM Flight Planning Service evolution.</td>
</tr>
<tr>
<td>A FPL that used to be rejected when filing an ALTN that is the same as the ADES will no longer be rejected.</td>
</tr>
</tbody>
</table>

IFPS will NOT raise an error when the filed Alternate Aerodrome (ALTN) matches the filed Destination Aerodrome (ADES).

### 8.10 FB1021: Airspace Data Domain improvements

<table>
<thead>
<tr>
<th>Improving CACD behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB1021 will bring the following changes:</td>
</tr>
<tr>
<td>• Allow adequate testing of disabled Restrictions with dependent applicability hence not impacting OPS proceedings.</td>
</tr>
<tr>
<td>• Allow an ATC Unit to control more than one airspace. Hence, avoid the creation of dummy units that loop messages to the main one. This will subsequently simplify the addressing.</td>
</tr>
<tr>
<td>• Rename the DCT restrictions according to a naming convention which is easy recognizable.</td>
</tr>
<tr>
<td>No impact on External users except that about 3000 Aerodrome DCT restrictions will be renamed in one go.</td>
</tr>
<tr>
<td>New rules for Aerodrome DCT Restrictions identifiers are:</td>
</tr>
<tr>
<td>• AAAA+5A (e.g. EHAM5A)</td>
</tr>
<tr>
<td>• AAAA+5D (e.g. LBSF5D)</td>
</tr>
<tr>
<td>With AAAA = AD ICAO identifier, 5A for Arrivals, 5D for Departures</td>
</tr>
</tbody>
</table>
### 8.11 FB1022: ATFCM Domain improvements

<table>
<thead>
<tr>
<th>FB1022: ATFCM Domain improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement of existing ATFCM services.</td>
</tr>
<tr>
<td>CR_043915</td>
</tr>
<tr>
<td>Processing FURTHRTE points as DCTs</td>
</tr>
<tr>
<td>Consecutives points received in the FURTHRTE field of an FSA message will be connected as a direct segment.</td>
</tr>
<tr>
<td>No impact on external systems. This CR contributes to the predictability improvement. (it will not be part of the presentation to externals).</td>
</tr>
<tr>
<td>CR_043106: STAR information to be processed if received in FSA_PT</td>
</tr>
<tr>
<td>The STAR information is provided by some ANSPs in their en-route FSA message</td>
</tr>
<tr>
<td>After validation, this information will be used to update the airborne flight trajectory</td>
</tr>
<tr>
<td>CR_045516: OPLOG available for all flights in ETFMS</td>
</tr>
<tr>
<td>OPLOG will be retrievable for any flight loaded in ETFMS</td>
</tr>
<tr>
<td>User will be able to retrieve OPLOG for any flight loaded in ETFMS</td>
</tr>
</tbody>
</table>

### 8.12 FB1023: IFPS Workload Evolution

<table>
<thead>
<tr>
<th>FB1023: IFPS Workload Evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve the NM B2B flight plan filing experience by enhancing the current AOWIR and flight plan validation services and introducing IFPS Operational Replies via P/S (Publish/Subscribe)</td>
</tr>
<tr>
<td>This FB will impact only users deciding to make use of the new features. FB1023 will be available on B2B PREOPS environment around 4 weeks before OPS deployment.</td>
</tr>
</tbody>
</table>
This CR introduces ORM (Operational Reply Messages) via B2B Publish/Subscribe paradigm. This will support users that are currently filing flight plans via AFTN/SITA networks and at the same time are building new software applications that connect to NM B2B but not to AFTN/SITA.

This CR enhances the AOWIR (Aircraft Operator What-If Rerouting) and flight plan validation services by providing as output the CTOT (Calculated Take-Off Time) and last validity period (before the route becomes invalid).

8.13 FB1029: e-Helpdesk - NOM evolution

The improvements proposed in this functional block will allow the FMPs to operate as ‘delegated TWRs’ via e-Helpdesk application and for each individual e-Helpdesk request. The change will permit to ‘delegated FMPs’ by using one single application instance:

- To determine for each request the operational unit (FMP, TWR-CDM, TWR-non CDM),
- To update the delegation units by an environment data update. The change will allow to keep control and transparency on the delegation rules and to reduce the operational complexity of the application. More generally, the change will allow:

The changes will be visible in e-Helpdesk application as follows:
- A drop-box feature will be available to the FMPs presenting the TWR(s) that could have delegated the e-Helpdesk function to them.
- Two new columns will appear in e-Helpdesk tables: delegator type and ANU id.
- Two new fields in e-Helpdesk details.
- The e-Helpdesk business rules depending on the originator will be updated using the delegator data if exists.
therefore the move from telephone coordination to electronic coordination. The aforementioned limitation is not reduced to role-based authorisation and playing roles because:
• For operational reasons the roles and locations determine different business rules that apply based on the procedures applicable to e.g. FMP, A-CDM (TWR), AdT TWR, non CDM
• For post-ops reasons and best practices, NOM needs to be able to distinguish between an FMP e-Helpdesk request for FMP reasons and for TWR reasons [see above]. There is a need to evaluate the shift from telephone and the level of usage of each unit and operational role, independently.
• NOM wishes to keep control on what TWR(s) an FMP can impersonate e.g. not having Barcelona FMP impersonating the Oslo TWR.

| • An FMP to impersonate zero, one or more TWR | • An FMP to impersonate any kind of TWR: A-CDM, Advanced or Standard |
| • To trace a list of TWR delegators given the FMP ANU id found in CACD (Units) |

### 8.14 FB1038: Flight efficiency - Enhance GRRT

| CR_045730: Add avoid MPR constraint | GRRT will be able to avoid the Most Penalizing Regulation (MPR). | Users will be able to select additional parameters in their GRRT template, as prerequisite for more precise GRRT calculations. AOs will be able to able to identify OPP in Archive flight list in CHMI. |
8.15 Isolated CR

8.16 CR_046926 Create an check box to plot restriction when plotting

Display restrictions in the External ATFCM vertical view

Today PTR (profile tuning restriction) information is missing from the vertical view of the External ATFCM CHMI.

Plotting on the vertical view will slow down considerably if restrictions needs to be displayed. This can take up to 30 secs

The user can now enable in the CHMI preferences ATFCM restrictions as an option to display restrictions.

By default, this selection will be set to not display restrictions in order to avoid timing degradation for the non-impacted users

In the External ATFCM CHMI the user will have to select manually when this function is needed

The selection box will be de-selected by default

To enable the selection the External ATFCM CHMI user shall select the CHMI application preferences icon in the CHMI menu

Selecting MAP application => Vertical View => Show restrictions ATFCM

It is expected that with the restrictions selected the vertical view can take up to 30 secs to display all the restriction data to the user.

With the selection de-selected there will be no degradation in the timing of the generation/display of the vertical view to the user.
Examples of the selection/deselection

ON
8.17 CR_039216 (Acceptance of TTOT of ATC-DPI slightly outside STW)

An A-DPI message without DEPSTATUS TWRUPDATE field is sent by the A-CDM system when the flight actually departed from the block, and statistics have shown that the TTOT in the message is an accurate estimation of the take-off time when the flight is not regulated or
when the TTOT is inside or after the STW. Reflecting this TTOT in the traffic load will improve predictability.

When the TTOT is before the STW for a regulated flight, statistics have shown that the aircraft is more likely to take-off at the start of the STW. This is because the tower may ask the pilot to leave the block earlier in order to free the stand for an arriving aircraft. In such situations, the departing aircraft will usually wait on a remote position until it is allowed to taxi, with as target take-off time the start of the STW.

An A-DPI message with DEPSTATUS TWRUPDATE field is a CTOT extension request and is subject to special processing when received for a regulated flight and with TTOT after the Slot Tolerance Window.

1. In all cases described below, the A-DPI is accepted and the CDM status is set to Actual_Off_Block.
2. An A-DPI (with or without DEPSTATUS TWRUPDATE field) for a non-regulated flight TACT activates the flight and the CTFM TOT is updated with the TTOT from the message.
3. An A-DPI without DEPSTATUS TWRUPDATE field for a regulated flight and with TTOT inside or after the STW, TACT activates the flight and the CTFM TOT is updated with the TTOT from the message. The CTOT doesn't change (but the TTOT must be inside the STW for the message to be accepted).
4. An A-DPI with DEPSTATUS TWRUPDATE field for a regulated flight and with TTOT inside the STW, TACT activates the flight and the CTFM TOT is updated with the TTOT from the message. The CTOT doesn't change.
5. An A-DPI (with or without DEPSTATUS TWRUPDATE field) for a regulated flight and with TTOT before the STW, TACT activates the flight and the CTFM TOT is updated with the start of the STW. The CTOT doesn't change.

NMOC shall process the TTOT of an A-DPI message with DEPSTATUS TWRUPDATE field, received for a regulated flight and when the TTOT is after the STW, in the following way:

If:

- the STW consists of standard values [ -5, + 10 min ] (it has not been extended),
- TTOT <= CTOT + 20 min,
- and the message is received before the end of STW,
- and an extension of the CTOT by 10 min will not push the RTFM outside the regulation(s) period(s),
- and an extension of the CTOT by 10 min will not push the RTFM inside a zero-rate, insufficient RVR or XCD regulation period,

then extend CTOT by 10 minutes (new CTOT is forced to previous CTOT + 10 min),

else, perform a network impact assessment with minimum CTOT = TTOT (resulting in the sending of an SRM, SLC or FLS message).

Then, if the TTOT is inside the STW around the new CTOT (or flight de-regulated), NMOC shall also use the TTOT to update the traffic load. If the TTOT is before the STW around the new CTOT, then NMOC shall update the traffic load based on the new CTOT and shall NOT activate the flight (to allow improvements of the CTOT).

Remark: An A-DPI with DEPSTATUS TWRUPDATE field, received for a non-regulated flight, or for a regulated flight and with TTOT before or inside STW, is processed like a "normal" A-DPI: see Processing of TTOT from "normal" A-DPI.
RATIONALE:
Even with best planning, last minute situations may lead to an aircraft having departed from the block not being able to take-off in the STW. Under such circumstances, a manual CTOT extension (or recalculation) may be requested but this manual action has some disadvantages:

- It requires coordination between the tower and NMOC, which is achieved by phone.
- This coordination is time consuming, and the more the time passes, the less chances the CTOT extension will be granted.
- It generates workload at NMOC, since a flow controller has to perform a network impact assessment.
- Lack of consistency: being a manual action, the reaction (acceptance or rejection) may differ from one flow controller to another.

The A-DPI with DEPSTATUS TWRUPDATE field solves these issues by automating the CTOT extension or recalculation.

1. When all conditions are satisfied, the CTOT is extended by 10 minutes (new CTOT = previous CTOT + 10), the flight is TACT activated and CTFM TOT = TTOT (as the TTOT is inside the new STW).
2. If any of the required conditions is not satisfied, the CTOT is recalculated (a free slot is searched) with minimum CTOT = TTOT. If TTOT is inside the new STW, the flight is TACT activated and CTFM TOT = TTOT. If TTOT is before the new STW, the flight is in Filed_Slot_Issued and has no CTFM, so that the CTOT may still be improved.

NMOC shall process the TTOT of an A-DPI message with DEPSTATUS TWRUPDATE field, received for a flight suspended by airport, by performing a network impact assessment with minimum CTOT = TTOT (resulting in the sending of a SAM/SRM or DES/FLS message).

Then, if the flight is not regulated or gets a CTOT such that the TTOT is inside the STW around the new CTOT, NMOC shall also use the TTOT to update the traffic load. If the flight gets a CTOT and TTOT is before the STW around the new CTOT, then NMOC shall update the traffic load based on the new CTOT and shall NOT activate the flight (to allow improvements of the CTOT).

RATIONALE:
When a flight has a problem after off-block, the airport may inform NMOC via C-DPI, resulting in a flight suspension. When the issue can be solved before or without the aircraft having to return to stand, the airport should have the option to provide a special A-DPI with DEPSTATUS TWRUPDATE. In this case a network impact assessment will be done.

Expected
The CTOT is recalculated (a free slot is searched) with minimum CTOT = TTOT. If TTOT is inside the new STW, the flight is TACT activated and CTFM TOT = TTOT. If TTOT is before the new STW, the flight is in Filed_Slot_Issued and has no CTFM, so that the CTOT may still be improved.
8.18 I2_116122: IFPS/ETFMS messages with invalid characters

The IFPS/ETFMS errors being output are not consistent with the ADEXP Standard or the IFPS Dictionary of messages (DOM). This results in the invalid characters being changed to ‘?’ by NM systems for the Type-B output (SITA and ARINC).

There are recipients of these messages that can process the full character set but are still receiving NM messages with the unusual ‘?’ inserted.

With NM23.5, NM will stop changing the characters.

The characters that used to be changed to ‘?’ are:
- “_” (underscore)
- “|” (vertical bar)
- “[“ and “]” (square brackets)
- ““ (back quote)
- “;” (semicolon)
- “>” (greater than)
- “%” (percent)

Systems that receive IFPS reject messages and/or ETFMS FLS messages may experience problems with the error message change.

I2_117070: IFPS accepts IFR as requested cruising level

Stop IFPS accepting IFR as requested cruising level

IFPS currently accepts and outputs the three letter indicator IFR as a requested cruising level within filed flight plans. That is not complaint with the ICAO Doc 4444 specifications for the content of a filed flight plan. With the NM23.5 release, IFPS will invalidate such a filing returning the error:

SYN101: INVALID LEVEL DESIGNATOR.

Example of an incorrect filing:
(FPL-WOOPS-ZG
-SR22/L-SDFGY/S
-EKYT1300
-N0150F070 DCT AAL/N0150IFR DCT KOR/N0120VFR DCT BORUP DCT
-EKRK0100 EKOD
-0)
CHMI improvement - restore all workspaces  FW: INC0082419

This feature is mainly use by ANSP. It allows to save several workspaces and at the next CHMI startup, the previous saved workspace can be restored in a couple of seconds.

This feature is available for all users under Workspace/Restore/All.

Some ANSPs users have extremely heavy workspaces with more than 15 workspaces and each of them containing more than 10 queries.

As a result, when using the feature "restore all workspaces", it could trigger Service unavailable - Try later.

Example
Because of the high number of transactions (150 transactions or more) and the CHMI backend servers tries to react to the overload by rejecting these transactions.

Until now, when such errors occur, the CHMI user, cannot use the restore all workspaces anymore and needs to restore one by one each workspaces. Which is very time consuming.

To improve such behaviour, we have now introduce an intentional “pause” of 0,200 seconds between each workspaces.

This means that when using the feature “Restore Workspaces All”, it could take 2 to 5 seconds longer, than in NM 23.0.

Since this is a one-time operation, usually at the CHMI start-up, it is an acceptable delay.

For best CHMI performance, we also recommend to limit number of queries per workspace to 16 maximum queries.

Add more than 16 queries per workspace, makes the screen unreadable.

Example
9 Registration Request (OPT)

A) State:

B) ATS Unit:

C) Contact Person Name :
   Telephone :
   Fax :
   E-mail:

D) Token number (like p0abc) (if applicable):

E) Indicate the session(s)/dates during which you wish to participate.

<table>
<thead>
<tr>
<th>Test Session/dates</th>
<th>State the Functionality to be tested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F) Indicate the address where flight planning messages from the IFPS Test system are requested to be received:

G) If the address given in E) is a test address, indicate the operational address(es) or unit(s) it replaces or simulates for the purpose of testing:

H) If you intend to send test messages to the IFPS test address indicate the address you will use i.e the address from which IFPS will receive these messages:

   Do you wish to receive ACK, MAN, REJ messages?   Yes [ ] / No [ ]

I) Indicate the address from which you will send messages to the ETFMS Test system (if applicable):

J) Indicate if you require B2b access to OPT chain Yes [ ]

K) CHMI application: No registration is required see detailed instructions in section 0
   B2B: No registration is required. NM23.5 B2B Pre-ops platform will be available as from 24/09/2019 14:00 UTC