NM MAINT-1 OPT Instructions

NM OPT session 07 Sep 2023 - 06 Oct 2023

SUPPORTING EUROPEAN AVIATION

DOCUMENT CONTROL

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1.000	18/08/2021	MTU	Initial Draft
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(*) No release webinar is foreseen for a maintenance release

TABLE OF TABLES

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 NM MAINT-1.

(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 NM MAINT-1release.

(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)   **OPT session will take place from the 07/09/2023 10:00 UTC till the 06/10/2023 15:00 UTC.**

(7)   The platform will be available 7/7 but assistance only during weekdays.

(8)   PREOPS will be available in NM MAINT-1 version as from 07/09/2023 1000 UTC.

(9)   The External OPT editions are published independently of each other, with changes from the previous edition emphasised in **bold green**. The editions are published with their edition number clearly indicated in their title and body.

2 Objectives

2.1 General Objectives

(1)   The overall objectives of NM MAINT-1 OPT testing 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.

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 NM MAINT-1software.

2.3 Important Notifications

B2B Availability

NM B2B services

Important note: As the NM B2B services use the NM Backend systems, NM B2B services will be disrupted during the migration of these systems. For example, Flight Planning services will not be available during IFPS migration (cf. above).

Platform		Before PREOPS migration - 04/09/2023 06:00	After PREOPS migration - 05/09/2023 14:00	During migration to OPS From 10/10/2023 21:00 To 11/10/2023 00:00 Expected downtime 1h30 + 1h30 provision in case of rollback	After migration to OPS 11/10/2023 00:00
PREOPS	NM-26.0	Available	Available	Not available	Available
	NM-27.0	Not available	Available	Not available	Available
OPS	NM-26.0	Available	Available	Not available	Available
	NM-27.0	Not available	Not available	Not available	Available

As the NM B2B services use the NM backend systems, NM B2B services will be disrupted during the migration of these systems.

PREOPS: Migration from 05/09/2023 09:00 to 06/09/2023 14:00. Migrated NM B2B versions will be NM-26.0 and NM-27.0 (containing backward compatible MAINT-1 changes).

OPS: Migration from 10/10/2023 21:00 to 11/10/2023 00:00. Migrated NM B2B versions will be NM-26.0 and NM-27.0 (containing backward compatible MAINT-1 changes).

3 Isolated CRs

(1) This section lists new functionalities included in the NM MAINT-1release 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.

3.1 CR_053309 – Accept P-DPI for Advanced ATC TWR Airports

Description
This change is an enabler for Advanced ATC TWR airports to provide Predicted-DPI messages to NM through the ECRA tool. The aim is to achieve improved network predictability by updating the traffic demand as early as possible by taking into account the reactionary delay in the turnaround TTOT calculation.
The NM systems will be updated such that they will accept P-DPI messages from Advanced ATC TWR airports, which is not possible in the current release. The actual deployment is intended to begin in Q4 2023. The geographical scope as well as the timeline are not yet defined.

NM applications and services changed: CACD, ETFMS

Impact description
There will be NO impact immediately following the MAINT-1 release migration. The only immediate impact will be that the NM systems will become fit to accept P-DPI from Advanced ATC TWR airports. The impact for external stakeholders will not materialize until this is actually deployed in operations, i.e. when certain regional airports will actually start sending P-DPI messages through the ECRA tool. These regional airports will be marked in NM systems (NM HMIs and NM B2B Flight data) as Advanced ATC TWR airports.   When that happens, the impact on external stakeholders and NMOC will be exactly the same as for those flights for which P-DPI messages are already provided today. The turnaround TTOT value in P-DPI messages will improve the traffic demand as a result of integrating the reactionary delay for flights departing from these airports. FMPs and NMOC will have better traffic counts.

3.2 CR_053430 – Draft MCPs to be deleted using the NM B2B

Description:
With NM-27.0, the CR_052020 (Delete draft MCP regulations) was implemented in NMP Flow application. The integration of the same functionality in the NM B2B Services is the result of a harmonization process inside NM applications/services. Therefore, the FMPs using their own application built on the NM B2B services will be able to delete the draft MCPs. This functionality will give the possibility to use the same regulation identification after the draft deletion.

NM applications and services changed: B2B

Impact description:
The FMP interested in this functionality must upgrade their own application to integrate the deletion of the draft MCP.

3.3   CR_053513 – FRA and other DCT restrictions shall be checked when there are no AD DCT restrictions.

Description
This change will prevent flight planning to escape from DCT and FRA restrictions when an aerodrome has no DCT limitation defined.

NM applications and services changed: IFPS ETFMS CACD: Restriction checking

Impact description:
In case there is no DCT limitation (Restriction) defined the system does not validate the flight plan against any DCT or FRA Restriction. This change is ensuring this validation.

3.4   CR_053706 – Airspaces of type ERAS and CRAS cannot be used as reference locations in traffic volumes.

Description
The objective of this change is to facilitate ETFMS users to use airspace of type RAS as a reference location in a traffic volume.

NM applications and services changed: ETFMS CACD

Impact description:
Internal or external ETFMS users will be able to select a RAS as reference location for a traffic volume and thereby improve the traffic capture performance.

3.5   CR_053008 – Filtering of iOAT flight plan distribution

Description
The overall objective is to initiate the implementation of improved Operational Air Traffic (iOAT) flight plan in NM systems. This CR focuses on the IFPS distribution of IOAT flight plans. NM shall allow (or not) iOAT flight plans to be distributed to certain units. This will be done by adding in a new attribute ("iOAT") in the address usage which when selected will allow the address (of the unit) to receive iOAT flight plans.

NM applications and services changed: FPL (IFPS Distribution) CACD (Address Usage attribute in Unit entity)

Impact description:
Users of iOAT flight plan will need to adapt their systems and procedures to use the new features.

Operational deployment plan:
Deployed in operations after release migration and following successful Pre-Ops

testing with external users.

3.6   CR_053431 – Missing ANU addresses in Flight Plan/FF-ICE Publish/Subscribe

Description

All ANSPs that receive flight plan messages from IFPS via AFTN will be able to receive flight plan messages for the same flights via the NM Publish/Subscribe service.

NM applications and services changed: NM B2B

Impact description:

No impact expected on existing users that receive flight plans using the NM Publish/Subscribe service.

3.7   CR_053507 – Missing data items from the Flight Plan/FF-ICE Publish/Subscribe

Description

Various improvements related to the data publication via Publish/Subscribe will be provided through the NM publication service (FFICE_PUBLICATION or FLIGHT_PLAN topics): - The equivalent of the Items 15c,15a and 15b; - The arrival time, arrival aerodrome, and departure time received in ARR/DEP messages.

NM applications and services changed: NM B2B, IFPS

Impact description:

Users of FF-ICE flight plan (eFPL) will need to adapt their systems to use the new features.

3.8   CR_053508 – Identified PTR causing level-off not shown in agreed trajectory.

Description

The Agreed Trajectory provided by NM will indicate the portions where the vertical evolution of the flight is constraint by a PTR, e.g., the PTR makes the filed/desired trajectory deviate from its evolution that is based on the aircraft performance and requested cruising levels. The indication will consist of referencing the PTR's identifier and marking the corresponding points with the trajectory point property 'CONSTRAINT_POINT':

- The point where a level-off portion of the trajectory starts due to a PTR (a level-off portion is a level flight portion that is performed at a level that is not a requested cruising level);
- The point at the end of the level-off portion that is due to a PTR where the climb/descent is resumed.

Note: the PTRs are made available to the users via NM B2B services (other than FFICE services)

NM applications and services changed: IFPS, NM B2B

Impact description:

Users of FF-ICE flight plan (eFPL) may need to adapt their systems to use the new information.

3.9 **CR_053206 – RTECOORATC column in NMP Flight & Flow.**

Description

NMP Flow users will be able to visualise flights for which the keyword RTECOORATC has been used in field 18 of their FPLs. This is to confirm that appropriate coordination has been undertaken with the relevant FMPs/ANSPs.

NM applications and services changed:

One new column added in the flight lists of NMP Flight & Flow applications.

As well, this FPL information is provided in NM B2B via the new field `Flight.atcCoordinatedRoute`.

Impact description:

Additional information available for FMPs.

3.10 **NCO_20812 – NMP Flow: Correction & Tuning following testers and users feedback**

Description

Changes for Correction & Tuning of the NMP Flow application following feedback received after the deployment of NM-27.0 software.

NM applications and services changed: NMP Flow

Impact description:

No operational impact for external users.

3.11 **CR_053506 – NMP Flight/OPP: finalize incomplete development from NM-27.0**

Description

The purpose of this change is the finalisation of NMP Flight developments planned but not completed in the NM 27.0 (FB1186 - Flight Efficiency).

With this change, NMP Flight/Flight Management will:

- Sort proposals per total cost
- Show a limited number of interesting alternatives, based on the latest GRRT executions.
- Highlight the proposal which generated Best Rerouting Indicator
- Show the time in which the proposal was generated (GRRT executed)
- Introduce Opportunity Feedback Remove button (remove previously submitted feedback)
- Make Opportunity Feedback Comment optional (currently it is mandatory)
- Reorganise information visible in the Flight management/ Rerouting opportunity section.
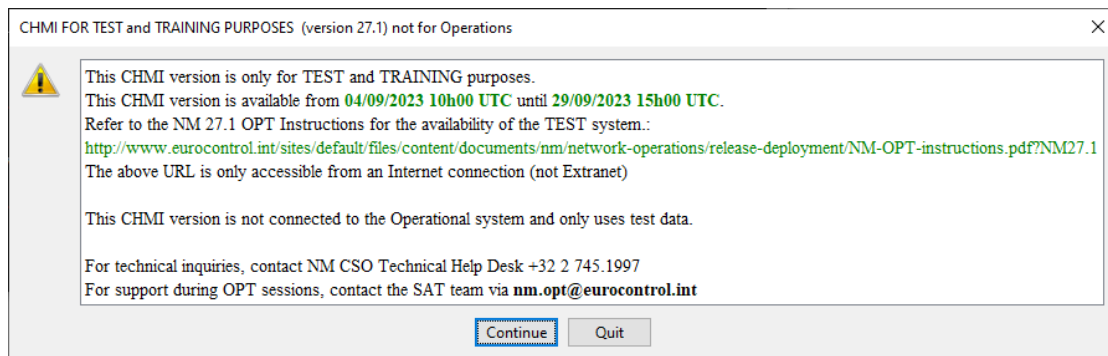
NM applications and services changed: NMP Flight, NM B2B

Impact description:

- NMP Flight Opportunities presentation will be enhanced.
- Additional information will be available via NM B2B

3.2 Testing of the CHMI

3.2.1   For NM-managed PC (OPTION2 PC, connected to NEWPENS)

- No registration is required.

- The OPT CHMI will be pushed on the PC on 05/09/2023.22h00 UTC (standard maintenance window).

- **Right after the installation, there will be a newer shortcut available. CHMI 27.1.0.3-OPSTEST.**

- As from the 07/09/2023 (10:00 UTC - start of the OPT session), to use the CHMI-OPT, please navigate through the Windows Start menu and launch: Start->Programs->NM Applications->CHMI 27.1.0.3-OPSTEST

- A warning pop-up message will be displayed ("This CHMI version is for TEST and TRAINING purposes […]"). Click "Continue" if you agree.

CHMI FOR TEST and TRAINING PURPOSES (version 27.1) not for Operations   ✕

⚠   This CHMI version is only for TEST and TRAINING purposes.
This CHMI version is available from 04/09/2023 10h00 UTC until 29/09/2023 15h00 UTC.
Refer to the NM 27.1 OPT Instructions for the availability of the TEST system.:
http://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/release-deployment/NM-OPT-instructions.pdf?NM27.1
The above URL is only accessible from an Internet connection (not Extranet)

This CHMI version is not connected to the Operational system and only uses test data.

For technical inquiries, contact NM CSO Technical Help Desk +32 2 745.1997
For support during OPT sessions, contact the SAT team via **nm.opt@eurocontrol.int**

Continue   Quit

Second warning message

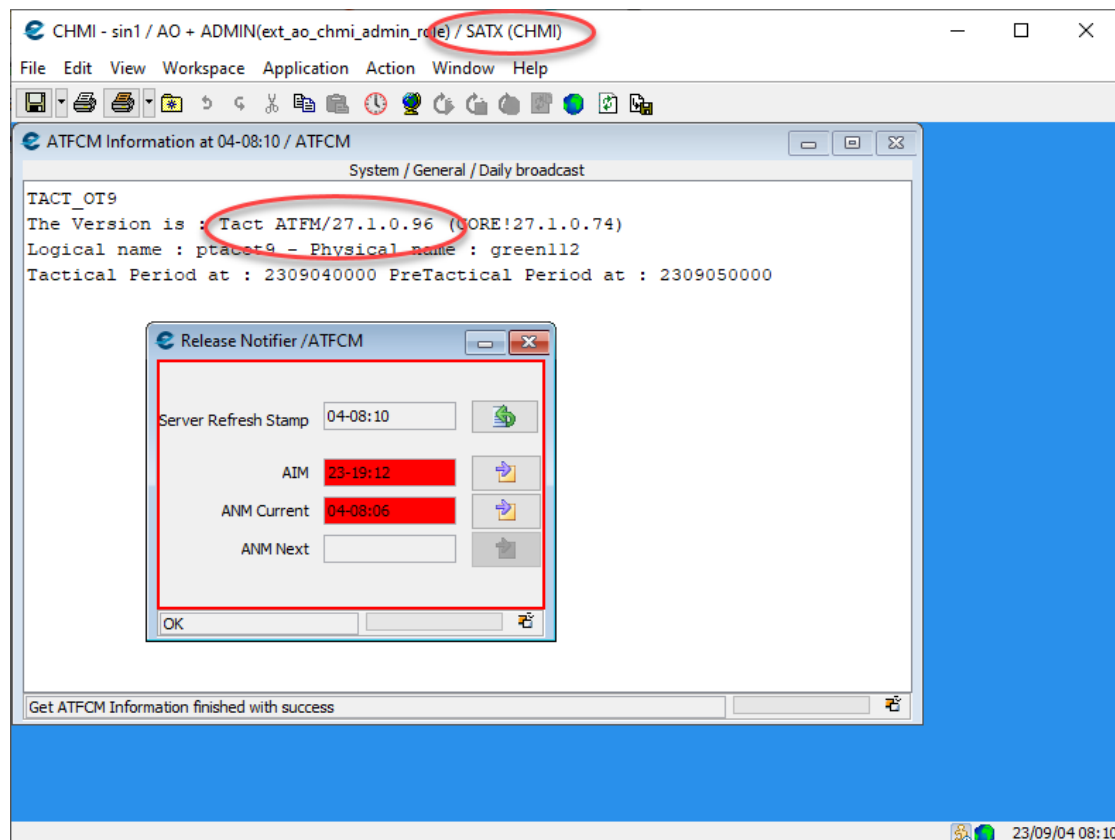### 3.2.2 CHMI application for non NM-managed PC (Internet PC)

- No registration is required.

- You need to download and install the CHMI first.

- Click on the link to download the software CHMI_27.1.0.3-OPSTEST.ZIP

- The Software is available under

http://www.test1.nm.eurocontrol.int/chmi_appsoft/NM27/OPT/CHMI_27.1.0.3-OPSTEST.ZIP

- During the External OPT, CHMI application can be access as follows:
- To launch the CHMI, execute .. ..\bin\chmi\CHMI 27.1.0.3-OPSTEST.bat

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

To ensure that you are connected to the CHMI-OPT environment, check the "**SAT/X**" reference in the ATFCM Information window and in the CHMI title bar.

CHMI in OPT environment

3.3 Testing of the NOP Portal

(1)   No registration is required.

(2)   As from the 07/09/2023 (10:00 UTC - start of the OPT session), please use the following URL to test the NOP Portal-OPT:
https://www.testx.nm.eurocontrol.int/PORTAL/gateway/spec/index.html

(3)   Log-in with your userID and token.

(4)   After a successful authentication, you will be connected to the OPT environment.

(5)   To ensure that you are connected to the NOP Portal-OPT environment, check the "SAT/X" reference, under Network Headline News;

NOP in OPT environment

3.4 Testing of the NM B2B Services

External Testing and Validation of NM B2B – PREOPS NM offers a pre-operational (PREOPS) platform that NM B2B users can use for testing purposes.

The software to be released in the new NM release is deployed on the PREOPS platform around two months before its deployment in operations, so that users can start working on the new API prior to operational deployment.

PREOPS services remain available after the operational release.

The PREOPS platform is not the operational platform. The quality of the PREOPS services may be lower than the quality of the operational services. In particular, availability is not guaranteed 24/7, as support is only available during office hours. Additionally, the quality of the data on the PREOPS platform depends on the specific service groups (please see the NM B2B Reference Manuals for further details).

SAT B2B test platform

This B2B platform is available at the commencement of the OPT session for early validation.

(6)   The SAT B2B environment can be accessed via a dedicated url.
        https://www.b2b.testx.nm.eurocontrol.int/B2B_OPS/gateway/spec/27.0.0

(7)   This platform allows users to perform early validation of functionality planned to be delivered in the upcoming release

PRE_OPS platform:

(8)   No registration is required. NM MAINT-1B2B Pre-ops platform will be available as from 07/09/2023 08:00 UTC.

(9)   Draft documentation for NM MAINT-1**preops** will be available (in pdf and HTML format) in a dedicated folder containing "NM MAINT-1" in its title on the OneSkyTeam web site:

https://ost.eurocontrol.int/sites/B2BWS/Shared%20Documents/Forms/AllItems.aspx

(**) Please note that: • The NM-27.0 B2B PREOPS platform will be available as from 07/09/2023 10:00 UTC

• The authentication must be done with the PREOPS certificates (not the OPS ones)

3.5 TP1 access during External OPT

3.5.1 General

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

3.5.2 NOP Portal

(1)   ENVPREVAL.SAT NOP Portal can be accessed via url https://www.test1.nm.eurocontrol.int/PORTAL_TP1/gateway/spec/index.html .

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

3.5.3 CHMI

3.5.3.1 NM Managed PC(OPTION2 PC, connected to NEWPENS)

(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->Programs->NM Applications->CHMI 27.1.0.3 ENVPREVAL-NEXT_AIRAC..
This shortcut will be available only on or after 5/09/2023.

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

3.5.3.2   Non NM-managed PC

- You need to download and install the CHMI first.

- Click on the link to download the software CHMI_27.1.0.3-OPSTEST.ZIP

- The Software is available under

http://www.test1.nm.eurocontrol.int/chmi_appsoft/NM27/OPT/CHMI_27.1.0.3-OPSTEST.ZIP

- Same link as above

- During the External OPT, the ENVPREVAL.SAT can be access as below:

- To launch the CHMI, execute ..
..\bin\chmi\CHMI_27.1.0.3_ENVPREVAL_Next_AIRAC.bat

3.6 Testing of NMP/FLIGHT AO application

(1)   Log into the application via https://b2c.testx.nm.eurocontrol.int

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

(3)   The application is available under the FLIGHT tab

3.7 Testing of RAD

(1)   Log into the application via https://b2c.testx.nm.eurocontrol.int

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

(3)   The application is available under the RAD tab

4 Release Webinar

The release webinar is a presentation of the release together with a Q&A session answering user's questions, based on the NM Release Notes, which takes place around two months before migration.

Presentations, questions and answers are then published.

There is no webinar for Maintenance release.

5 Migration Details

The migration of NM systems from NM-27 to NM MAINT-1 will start on the 10/10/2023 and last till 17/10/2023.

Please note a change in the usual migration pattern.

Usually, there is a week between the ETFMS and the IFPS migration.

6 How to participate

The testing session will take place:

<u>Weekdays</u> from the 07/09/2023 to the 06/10/2023

6.2 Messages exchange

(1) If you want to receive a message exchange between systems via AFTN or IATA TYPE-B for TACT IFPS please send registration form on §8 with the following information to nm.opt@eurocontrol.int

(2)

     a)   Full Name
     b)   Company/Organization
     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). <u>Care should be taken to ensure that the ORMs from the IFPS/ETFMS test system are NOT used operationally.</u>

6.3 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

Figure 1: IFPUV in the NOP

(3) NOP AFTN Address: EUCHZMFV

(4) NOP IATA TYPE-B Address: BRUEY7X

(5)   OPT participants that wish to communicate with the NM via the AFTN/IATA TYPE-B test platforms must ensure that they communicate to NM the AFTN/IATA TYPE-B 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
IATA TYPE-B: ANREP7X
ETFMS   :   AFTN: EUCHZMTT
IATA TYPE-B: ANREA7X

7 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.

7.3 Participant Address Data

(1) Participants to the OPT testing sessions can provide, via mail to nm.opt@eurocontrol.int, an indication of:

     a) <u>For flight plan originators</u> (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.

7.4 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.

8 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).

8.3 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.

8.4 Non-EUR Participation

8.4.1 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.

8.4.2 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.

Figure 3: IFPS Re-Addressing Function (AD Line addressing)

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

 PENEK 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 UUWV0228 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 operations.
   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.

8.5 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 Germany

(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.

8.6 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.

8.7 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.

8.8 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.

8.9 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

8.10 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: Roland Martineau
        b)   E-Mail: nm.opt@eurocontrol.int,
        c)   Telephone: +33 1 69 88 75 96

8.11 Important notifications related to NM MAINT-1

8.11.1   NM MAINT-1 Supported Browsers and Operating Systems

For its web applications, NM recommends the following browsers:
- Mozilla Firefox
- Google Chrome

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.
For any other browser brand or version, issues will be analysed, and resolution attempted on a best effort basis.

For all its client applications (web applications and CHMI), NM recommends the following operating system (OS): Microsoft Windows 10 64-bit.

For this recommended OS, NM undertakes to investigate and attempt to resolve problems – for any other OS or OS version, issues will be analysed, and resolution attempted on a best effort basis.

8.11.2   NM B2B web service:

Most NM B2B resources can be found from links in central NM B2B web page: https://www.eurocontrol.int/service/network-manager-business-business-b2b-web-services, including the NM B2B access request form.

NM offers a pre-operational (PREOPS) platform that NM B2B users can use for testing purposes.

The software to be released in the new NM release is deployed on the PREOPS platform around two months before its deployment in operations, so that users can start working on the new API prior to operational deployment.

PREOPS services remain available after the operational release. The PREOPS platform is not the operational platform. The quality of the PREOPS services may be lower than the quality of the operational services.

In particular, availability is not guaranteed 24/7, as support is only available during office hours. Additionally, the quality of the data on the PREOPS platform depends on the specific service groups (please see the NM B2B Reference Manuals for further details).

Draft NM B2B Reference Manuals are published around 4 months before operational deployment.

8.11.3   Decommissioning in NM-27.0

With the deployment of NM-27.0, the NM B2B version 25.0 will be decommissioned.

> **Hence, as part of the NM-27.0 release deployment, two NM B2B versions will co-exist during the lifetime of the NM-27.0 software release: NM B2B versions 26.0 and 27.0.**

NM B2B over (New)PENS
> The operational use of the NM B2B over NewPENS has been approved in September 2020 by EASA and is available.
> More information can be found in slides 20 and 21 of the EUROCONTROL NM B2B Tech Forum October 2020 presentation: https://www.eurocontrol.int/event/eurocontrol-nm-b2b-technicalforum-limited-edition.

8.11.4   P/S Upgrade – Discontinuity – Testing Required in NM-27.0

The upgrade of the technology in support to NM B2B Publish/Subscribe started with NM-26.0, as announced in past NM B2B Release Notes, and will be finalized with NM-27.0.
This section is a detailed reminder to the attention of the NM B2B client engineers.
As described in the NM-26.0 B2B Release Notes:
Since its introduction in 2015, the NM B2B Pub/Sub paradigm has seen a continuous growth in adoption and has become a fundamental asset for the daily operations of many NM stakeholders.
Given the importance of the Pub/Sub and having suffered some glitches in the past on the current technology on which the NM Message Brokers are based, NM has put in place a more robust Pub/Sub solution.
This process leads to the replacement of the existing message brokers by new brokers based on another technology.
The replacement of the message brokers is "transparent" to the client applications because:

- No changes were introduced to the NM B2B Pub/Sub API, messages, or queue names
- No changes were introduced to the client certificates or authorization rules o No changes were introduced to the messaging protocol (which remains AMQP 1.0)
- However, without exhaustive testing of every client application, NM cannot exclude any potential impact (e.g. due to different library implementations). For this reason, to avoid any such risk, NM has decided to keep the previous message brokers untouched in NM-26.0, so   that the existing client applications can continue to run as before and limit the use of the new brokers to the NM-26.0 subscriptions only. Consequently, the new message brokers had to be exposed at a different URL, as explained in the Service Locations / Message Service section of the Essentials Reference Manual.

The client application must download the new server certificate and save it in its trust store.
In summary, the following Pub/Sub policy had to be defined:

- Existing subscriptions (and associated queues) created on NM-25.0 will be kept untouched and therefore remain available as before on the old message broker via the old URL
- New subscriptions created using the NM-25.0 API will create queues on the old message broker and will be accessible via the old URL
- New subscriptions created using the NM-26.0 API will create queues on the new brokers and will be accessible via the new URL (please also note the new port number for PENS clients)

The URL values provided in the NM-26.0 B2B Release Notes for connecting to the new B2B Broker and consuming the messages over AMQP 1.0 were as follows. There is no reason that these values would change in NM-27.0, **however client engineers are invited to check the NM-27.0 B2B Release Notes around the end of 2022.**
for operational use in normal circumstances:
- amqps://pubsub.nm.eurocontrol.int:5671 (for queues over Internet)
- amqps://pubsub.nm.eurocontrol.int:15671 (for queues over PENS)
for operational use in contingency situations (only if declared by NM
  - amqps://pubsub.contingency.nm.eurocontrol.int:5671 (for queues over Internet) o amqps://pubsub.contingency.nm.eurocontrol.int:15671 (for queues over PENS)
for pre-operational use (not available in contingency situations)
- amqps://pubsub.preops.nm.eurocontrol.int:5671 (for queues over Internet) o amqps://pubsub.preops.nm.eurocontrol.int:15671 (for queues over PENS) From the above, it boils down that the following URLs will not be supported anymore with NM-27.0:
- amqps://publish.nm.eurocontrol.int:5671 (was for operational use in normal circumstances)
- amqps://publish.contingency.nm.eurocontrol.int:5671 (was for operational use in contingency situations (only if declared by NM))
- amqps://publish.preops.nm.eurocontrol.int:5671 (was for pre-operational use (not available in contingency situations))

Documentation:

Manuals/Guides	
Network Operations library	https://www.eurocontrol.int/library?f%5B0%5D=activity%3A774
ATFCM Users Manual	https://www.eurocontrol.int/publication/atfcm-users-manual
ATFCM Operations Manual	https://www.eurocontrol.int/publication/atfcm-operations-manual
CHMI ATFCM Reference	https://www.eurocontrol.int/publication/chmi-atfcm-reference-guide
API Implementation	https://www.eurocontrol.int/publication/arrival-planning-information-api-implementation-guide
DPI Implementation	https://www.eurocontrol.int/publication/departure-planning-information-dpi-implementation-guide
NM B2B documentation	https://ost.eurocontrol.int/sites/B2BWS/default.aspx Registration required - contact NM.servicerequests@eurocontrol.int
CCAMS User Manual	https://www.eurocontrol.int/publication/ccams-user-manual
IFPS Users Manual	https://www.eurocontrol.int/publication/ifps-users-manual Flight Plan guide: https://contentzone.eurocontrol.int/fpl/default.aspx
Flight Plan Guide and IFPS errors guide	https://contentzone.eurocontrol.int/fpl/default.aspx
Flight progress messages	https://www.eurocontrol.int/sites/default/files/2020-06/flight-progress-msg-update-230620.pdf
NMIR Users Guide	https://www.eurocontrol.int/publication/nmir-users-guide
FUA operations manual	https://www.eurocontrol.int/publication/flexible-use-airspace-fua-amccadf-operations-manual
CHMI ASM Function	https://www.eurocontrol.int/publication/chmi-asm-function-reference-guide
NOP Portal Function	https://www.nm.eurocontrol.int/HELP/pdf/NOP%20Portal%20-%20User%20Guide.pdf
B2B Write Access	https://ost.eurocontrol.int/sites/B2BWS/Shared%20Documents/8%20-%20Operational%20Deployment%20Process%20-%20Documentation/
Network Operations Library	https://www.eurocontrol.int/library?f%5B0%5D=activity%3A774

1 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.

Test Session/dates	State the Functionality to be tested

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 ☐ No ☐

    CHMI application: No registration is required see detailed instructions in section 3.16

    B2B: No registration is required. NM MAINT-1 B2B Pre-ops platform will be available as from 04/09/2023 08:00 UTC.

Abbreviations

ACC3	Air Cargo or Mail Carrier operating into the Union from a Third Country Airport
A-CDM	Airport-Collaborative Decision Making
ACH	ATC flight plan Change
ACK	IFPS Acknowledgement Message
AD	Airspace Data
ADES	Aerodrome of Destination
ADEXP	ATS Data Exchange Presentation
A-DPI	Airport-Departure Planning Information
ADS	Automatic Dependent Surveillance
ADS	NM Airspace Data Section
ADS	Airspace Data Service
ADS-B	Automatic Dependent Surveillance - Broadcast
AFP	ATC Flight Plan
AFTN	Aeronautical Fixed Telecommunication Network
AFUA	Advanced Flexible Use of Airspace
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information, Regulation and Control
AIS	Aeronautical Information Services
AIXM	Aeronautical Information Exchange Model
AMA	AMC Manageable Area
AMAN	Arrival Manager
AMC	Airspace Management Cell
ANI	Advanced Network Integrated (ANI) airports
ANSP	Air Navigation Service Provider
AO	Aircraft Operator
AoI	Area of Interest
AOP	Airport Operations Plan
AoR	Area of Responsibility
AOWIR	Aircraft Operator What-if Reroute
API	Arrival Planning Information
APL	ATC Flight Plan
APOC	Airport Operations Centre
ARO	Air Traffic Services Reporting Office
ARR	Arrival Message
ASM	Airspace Management
ATC	Air Traffic Control
ATFCM	Air Traffic Flow and Capacity Management
ATFM	Air Traffic Flow Management
ATM	Air Traffic Management
ATS	Air Traffic Services
AU	Airspace User

AUP	Airspace Use Plan
B2B	Business-to-Business
B2C	Business-to-Consumer
BADA	Base of Aircraft Data
CAA	Civil Aviation Authority
CACD	Central Airspace and Capacity Database (new name of ENV)
CADF	ECAC Centralized Airspace Data Function
CAP	Collaborative Advance Planning (DSNA tool)
CASA	Computer Assisted Slot Allocation
CASTAR	Computer Aided Synchronization Tool for Airspace Repositories
CCAMS	Centralised SSR Code Allocation and Management
CDM	Collaborative Decision Making
C-DPI	Cancel-Departure Planning Information
CDR	Conditional Route
CE	Change and Enhancement - or Central Europe
CfC	Closed for Cruising
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
CITO	Collaboration Interface for Tower
CNL	Cancellation Message
CNS	Communications, Navigation, Surveillance
COM	Communication
COM	Committee of Management
COVID-19	Coronavirus Disease 2019
CPA	Collaboration Portal Application
CPR	Correlated Position Report
CR	Change Request
CSST	Call-Sign Similarities Tool
CTFM	Current Tactical Flight Model
CTM	Cooperative Traffic Management
CTO	Calculated Time Over
CTOT	Calculated Take-Off Time
CUA	Common User Access
DCB	Demand and Capacity Balancing
DCT	Direct
DEP	Departure message
DES	De-Suspension Message
DLA	Delay or Delay Message
DLE	Delay or holding on route

DPI	Departure Planning Information
DSNA	Direction des Services de Navigation Aérienne
DSU	Division Support Unit
DWH	Data Warehouse system
EAD	European AIS Database
EAIMS	European ATM Information Management Service
EASA	European Union Aviation Safety Agency
EAUP	European Airspace Use Plan
EC	European Commission
ECAC	European Civil Aviation Conference
EDDP	Leipzig Halle Airport
EET	Estimated Elapsed Time
EFD	ETFMS Flight Data
eFPL	FF-ICE flight plan
EGCC	ICAO code for Manchester airport
EGKK	ICAO code for London Gatwick airport
ENV	NM Environment System (former name of CACD)
ENVCOOR	National Environment Coordinator
EOBT	Estimated Off Block Time
ERNIP	European Route Network Improvement Plan
ERR	Error Message
ETFMS	Enhanced Tactical Flow Management System
EU	European Union
EUROCONTROL	European Organization for the Safety of Air Navigation
EUUP	European Update airspace Use Plan
FAAS	Flight Assessment and Alert System
FAB	Functional Airspace Block
FAM	Flight Activation Monitoring
FB	Functional Block
FCM	Flight Confirmation Message
FF-ICE	Flight and Flow Information for a Collaborative Environment
FIXM	Flight Information Exchange Model
FL	Flight Level
FLS	Flight Suspension Message
FMP	Flow Management Position
FPFDE	Flight Plan and Flight Data Evolution
FPL	Flight Plan message (ICAO format)
FPP	Flight Plan Processing
FRA	Free Route Airspace
FSA	First System Activation message
FTFM	Filed Tactical Flight Model
FUA	Flexible Use of Airspace
GAI	General Arrival Planning Information

GRRT	Group Re-Routing Tool
GUFI	Globally Unique Flight Identifier
HMI	Human-Machine Interface
I2	Incident Type 2
IAF	Initial Approach Fix
IAP	Instrument Approach Procedure
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ID	Identifier
iDAP	Integrated Digital ATFCM Platform
IDLA	Individual Delay (message)
IFPS	Integrated Initial Flight Plan Processing System
IFPUV	IFPS Unit for Validation
IFPZ	IFPS Zone
IFR	Instrument Flight Rules
IR	Implementing Rule
M&R	Monitoring and Reporting
MCDM	Measure Collaborative Decision Making
MIN	Minimum
MoC	Memorandum of Cooperation
MSG	Message
N/A	Not Applicable
NAM	Non AMC manageable Area
NATS	National Air Traffic Services (UK)
NAV	Navigation
NCAP	Network Collaborative Advance Planning (DSNA tool)
NCO	n-CONECT
n-CONECT	network-COmmoN Enhanced Collaborative ATM
NES	n-CONECT Eco System
NIA	Network Impact Assessment
NID	Network Impact Display
NM	Nautical Mile
NM	Network Manager
NMD	Network Management Directorate
NMIR	NM Interactive Reporting
NMOC	Network Manager Operations Centre
NMP	NM Portal
NMVP	Network Manager Validation Platform
NOP	Network Operations Plan
NOP	Network Operations Portal
NOTAM	Notice to Airmen
NPP	Network Performance Plan
NPZ	No Planning Zone

NRC	National RAD Coordinator
NSP	Network Strategy Plan
OAI	Target Time-Over Arrival Planning Information
OAR	ATFM Rerouting
OAT	Operational Air Traffic
ODSG	Operations and Development Sub-Group
OPP	Opportunity
OPS	Operations
OPT	Operational Testing
ORGN	Originator
OS	Operating System
P/S	NM B2B Publish/Subscribe
PC	Provisional Council
PCP	Pilot Common Project
PDI	Predicted Departure Planning Information
P-DPI	Predicted DPI
PFD	Planned Flight Data
PREDICT	Variant of TACT used for Pre-Tactical Work
PSFD	Publish/Subscribe Flight Data (NM B2B)
PTR	Profile Tuning Restriction
R	Restricted Area
R	Right
R&D	Research and Development
R/R	NM B2B Request/Reply
RAD	Route Availability Document
REA	Ready Message
RFI	Ready For Improvement Message
RFR	Re-route after reroute cancellation
RJT	Rerouteing Rejection message
RP3	Reference Period 3
RP4	Reference Period 4
RQS	Requested Supplementary Information Message
RRM	Rerouting Proposal Creation
RRN	Rerouteing Notification Message
RRP	Rerouting Proposal Message
RSA	Restricted Airspace
RSI	CASA Revoke slot proposal
RTFM	Regulated Tactical Flight Model (by ATFM Measures)
RWY	Runway
SAFA	Safety Assessment of Foreign Aircraft (Programme)
SAM	Slot Allocation Message
SB	Study Block
SES	Single European Sky

SESAR	Single European Sky ATM Research
SIBT	Scheduled In-Block Time
SID	Standard Instrument Departure
SIP	Slot Improvement Proposal Message
SITA	Société Internationale de Télécommunications Aéronautiques
SLC	Slot Cancellation message
SMM	Slot Missed Message
SO	Strategic Objective
SPA	Slot Improvement Proposal Acceptance Message
SRC	Safety Regulation Commission
SRJ	Slot Proposal Rejection message
SRM	Slot Revision Message
SSP	CASA STAM Proposal
SSR	Secondary Surveillance Radar
STAM	Short-Term ATFM Measures
STAR	Standard Terminal Arrival
SWIM	System-Wide Information Management
SWM	SIP Wanted Message
TACT	Tactical System (predecessor of ETFMS)
TAI	Target Take-Off Arrival Planning Information
TB	Technical Block
TCF	Transponder Code Function
TLP	Traffic Light Protocol
TMA	Terminal Control Area
TOBT	Target Off Block Time
TP	Terminal Procedure
TP	Transport Protocol
TP	Trajectory Prediction
TTL	Technical Team Leader
TTL	Time Table List
TTOT	Target Take Off Time
TV	Traffic Volumes
TWR	Aerodrome Control Tower
UCD	Update MCDM Data
URL	Uniform Resource Locator
UTC	Coordinated Universal Time
UUP	Updated Airspace Use Plan
VFR	Visual Flight Rules
WG	Working Group
WKTRC	Wake Turbulence Category
WTC	Wake Turbulence Category

Table 1 - Abbreviations table

SUPPORTING EUROPEAN AVIATION

SUPPORTING EUROPEAN AVIATION