

Please find below:

- The recording: https://youtu.be/cRf-nUQyqfQ
- The link toward the NM23.5 Release Notes:
 https://www.eurocontrol.int/publication/network-manager-release-notes-planned-implementation-2019-2020
- The slides used during the Presentation (below in this pdf)
- This document is available on the public website (as a pdf) at: https://www.eurocontrol.int/library?f%5B0%5D=activity%3A774

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Presentation of NM23.5 to Externals

EUROCONTROL – Network Manager Directorate 11/09/2019

v1.4

Classification TLP: White (Public)







Welcome to the Presentation of NM23.5 to Externals

Agenda

- 1- Introduction and interface set-up
- 2- NM23.5 Release presentation:
 - 2.1- Important notifications related to NM23.5 OPT (operational testing) session
 - 2.2- FBs (Functional Blocks) presentation
- 3- Way forward toward NM23.5 migration





Presentation is recorded; recording (audio and slides) will be available on the Eurocontrol public website in a few days:

https://www.eurocontrol.int/library?f%5B0%5D=activity%3A774

(This URL available in §1 of the NM Release Notes:

https://www.eurocontrol.int/publication/network-manager-release-notes-planned-implementation-2019-2020)

1- Introduction



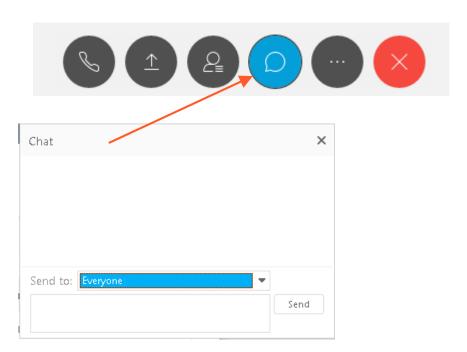
- Goals of the presentation:
 - Present the new features of the Release NM23.5.
 - Operational Project Managers will present their Functional Block.
 - Enable you to assess the impacts on your procedures or systems.
 - Ask questions (today after each FB presentation, or by eMail at nm.releases@eurocontrol.int).
- Why doing the presentation now?
 - ⇒ SHOM2 Gate (Software Hand-Over Meeting) is passed.
 - ⇒ System testing and Operational Acceptance testing are still ongoing, so Release content may slightly change until the Release migration.



1- Introduction: Webex interface set-up

To be done now:

1- Move your mouse on the screen to display the set of icons in the bottom of your screen:



2- Click on the « Chat » icon



1- Introduction: How to ask questions - by chat

- Questions may be asked <u>by chat only</u> at the end of each Functional Block presentation.
- How to ask a question by chat:
- ▼ Chat

 X

 Send to: Everyone

 Select a participant in the Send to menu first, type chat message, and send...

1- Type your question in the Chat window

- 2- Select « Everyone » and click on « Send »
- 3- The presenter will read the question and reply to it <u>orally</u>
- 4- If at the end of the answer you still need clarifications, please type them in the Chat window.

You can type your question during the presentation; if required, add the slide number (bottom right of the slide).

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2- NM23.5 Presentation





2.1- The NM Release Notes



- The NM Release Notes contains the latest information on Releases:
 - OPT (Operational Testing) Session information, OPT guide, etc.
 - Webex presentation information (including slides and recording)
 - Release migration plan per system and services
 - Releases important notifications
 - Release content in a structured format
- Release Notes are available at:

https://www.eurocontrol.int/library?f%5B
0%5D=activity%3A774

To receive information on the Release (including NM Release Notes updates, OPT information, presentations, etc.): subscribe to the mailing list (cf. §1 of the NM Release Notes)

| FBxxx: Number a | and name of the Functional Block | | | | | |
|----------------------|--|--|--|--|--|--|
| | The categories of NM Users which are impacted by the new features of the Functional Block: | | | | | |
| | U1. Flow Manager (FMP) | | | | | |
| | U2. Airspace Manager (AMC) | | | | | |
| | U3. Airspace User (Civil) | | | | | |
| | U4. Airspace User (Military) | | | | | |
| | U5. ENV data provider | | | | | |
| | U6. Management (eg crisis management, performance management) | | | | | |
| Users impacted | U7. Post-ops analyst | | | | | |
| · | U8. AO or CFSP | | | | | |
| | U9. CAA, EASA | | | | | |
| | U10. Non-CDM Airport | | | | | |
| | U13. CDM-Airport | | | | | |
| | U11. ARO | | | | | |
| | U12. Internal NM | | | | | |
| | U14. Air Navigation Service Provider (ANSP) | | | | | |
| | U0. Other (specify): | | | | | |
| | The NM application(s) or service(s) that will be impacted by the Functional Block: | | | | | |
| | A1. CHMI | | | | | |
| | A2. CIFLO, CIAO | | | | | |
| | A3. CIAM | | | | | |
| Application impacted | A6. FPL (IFPS) | | | | | |
| | A8. CCAMS | | | | | |
| | A9. CSST | | | | | |
| | A10. NOP Portal | | | | | |
| | A11. NOP B2B | | | | | |
| | [] | | | | | |

2.1- NM23.5: The OPT (Operational Testing) (Release Notes §4.3.3)



NM23.5 is available for testing with the OPT (operational testing) session!

- NM23.5 OPT session is available until the 4th of October.
 - With the NM23.5 OPT you are able to:
 - Test NM23.5 on <u>your</u> systems with <u>your</u> procedures.
 - Download and test the new NM23.5 CHMI.
 - Test the new NM23.5 NOP Portal.
 - Test some new FBs (operational scenario provided in the OPT instructions).
- NM OPT instructions (cf. Release Notes §4.3.3):
 https://www.eurocontrol.int/publication/operational-testing-instructions
- B2B: NM23.5 will be available on PREOPS as from the 24 September 2019 14:00 UTC (date modified, to be updated in the next version of the NM Release Notes)
- All you need is to already have access to NM systems. No registration required (unless you want to exchange FPL messages with OPT platform).

⇒ Questions: nm.opt@eurocontrol.int

2.1- NM23.5: Important notifications (Release Notes §4.1)



- 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 (April 2020).
- The recommended **operating system** is Windows 10. Issues reported on CHMI using Windows 7 will be fixed on a best effort basis.
- NM B2B: Decommission of NM B2B NM21.5 webservice.
- Other important notifications will be tackled later in the presentation



Any questions?



2.2- NM23.5 FBs and CRs presentation



Only new features impacting operations and Externals are presented

| Topic | Topic Title | | | | | | | | |
|--------------------------------------|--|--|--|--|--|--|--|--|--|
| Airport and TMA Network Integration | | | | | | | | | |
| CR_039216 | Acceptance of TTOT of ATC-DPI outside STW | | | | | | | | |
| Operations Improvements | | | | | | | | | |
| FB1029 | eHelpdesk - NOM evolution | | | | | | | | |
| FB1022 | ATFCM Domain improvements | | | | | | | | |
| FB1017 | TCO alerting function | | | | | | | | |
| FB1020 | Flight Planning Domain improvements and Bug fixes | | | | | | | | |
| FB1023 | NM B2B Flight Management Improvements | | | | | | | | |
| | FPFDE (Flight Plan and Flight Data Evolution) | | | | | | | | |
| FB1010 | FF-ICE filing Function - file eFPL | | | | | | | | |
| Operations Improvements (cont.) | | | | | | | | | |
| CR_046926 | Display PTRs in CHMI map (vertical view) | | | | | | | | |
| QRV | Modification to the Query Replay Viewer application | | | | | | | | |
| INC0082419 | Improvement of the CHMI "Restore Workspaces All" feature | | | | | | | | |
| FB1021 | Airspace Data Domain improvements | | | | | | | | |
| | EAIMS (European ATM Information Management Service) | | | | | | | | |
| FB1036 | CASTAR improvements | | | | | | | | |
| FB1016 | NM airspace data model evolution | | | | | | | | |
| | FRA (Free Route Airspace) | | | | | | | | |
| FB1044 | FRA Improvements (NPZ) | | | | | | | | |
| Airspace Management and Advanced FUA | | | | | | | | | |
| FB1024 | ASM - Advanced FUA process improvements | | | | | | | | |
| | n-CONECT | | | | | | | | |
| FB942 | RAD@n-CONECT | | | | | | | | |
| FB943 | Airspace | | | | | | | | |

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CR_039216: Acceptance of TTOT of ATC-DPI outside STW





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1- Stakeholders impacted

- Flow Manager (FMP)
- CDM-Airport
- Advanced ATC TWR Airport

| | Service affected | | | | | | | | | |
|----------------------|------------------|------|--|-----------|--|--|--|--|--|--|
| CR_039216 | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | | | | | | |
| Internal computation | | Yes | | | | | | | | |
| Data structure | | | | | | | | | | |
| User Interface | | | | | | | | | | |
| Procedures | | | | | | | | | | |
| Training | | | | | | | | | | |
| B2B | | | | | | | | | | |

Internal computation: Change in the way the various parameters exposed to externals (eg. CTOT) are computed.

2- Background – Why



- Request from Towers at CDM airports to increase the A-DPI acceptance flexibility; agreed with the ODSG and DPI WG
- Reduced risk of CTOT deterioration while the flight is taxiing → reduced need for TWR to contact NMOC for CTOT extension
- Statistical analysis has shown that accepting the A-DPI improves traffic predictability

3- New features



- An A-DPI with a TTOT outside the STW will <u>not</u> be rejected
- The A-DPI will be processed as follows:
 - When TTOT < STW → CTFM created based on STW_lowerbound (standard CTOT 5')
 - When TTOT inside or after STW → CTFM created based TTOT
- CDMStatus will be set to ActualOffBlock
- CTOT will be frozen (except when explicitly requested by flow controller)
- Error message "TTOT OUTSIDE SLOT TOLERANCE WINDOW" suppressed

4- Impact of the FB



- CTOT frozen on acceptance of A-DPI, even when TTOT outside STW
- Reduced need for TWR to contact NMOC for CTOT extension
- ATC remains responsible for CTOT adherence
- Adherence to ATFM Slots remains based upon ATOT of the FSA
- An A-DPI with TTOT outside STW is still considered a "slot buster" according to the slot monitoring regulatory framework, and this will continue to be monitored as such
- The CDM system will no longer receive an error message when the A-DPI TTOT falls outside the STW
- No change to the CTOT extension request procedure



Any questions?



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FB1029: eHelpdesk - NOM evolution





1- Impact of the FB



Stakeholders impacted :

- Flow Manager (FMP)
- Airspace User (Civil)
- Non-CDM Airport
- CDM-Airport

| | Service affected | | | | | | | | | |
|----------------------|------------------|------|--|-----------|------------------------------------|--|--|--|--|--|
| FB 1029 | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other | | | | | |
| Internal computation | | | | | | | | | | |
| Data structure | | | | Yes | New column | | | | | |
| User Interface | | Yes | | | New drop down menu on the NOP | | | | | |
| Procedures | | | | | | | | | | |
| Training | | Yes | | | Simplified HMI interaction for FMP | | | | | |
| B2B | | | | | | | | | | |
| Other | | | | | | | | | | |

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2 - Background



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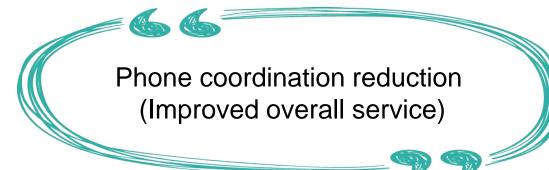
NM - FB1019

Summer 18-19 Experience

- Capacity shortfalls
- Exponential increase of requests
- Jeopardize the Network service

Summer 19-20 Strategy

- Enhance Network support
- Automation
- Integration
- Request classification



2- Background



The FB1029 contains following Change Request:

CR_046418 - FMP/TWR delegation access



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3 – Change



Overview of the change

- Certain FMPs operate on behalf of TWR for some procedures
- To improve the service, the organization of the requests was based on the requester
- To cover such operating mode, in NM 23.0, the role was associated to the token as follows:
 - One web browser to operate as FMP
 - One web browser to operate as TWR(s)
 - FMP to operate with 2 opened browsers
- After deployment feedback, there was an agreement to cover this operating mode via e-Helpdesk application

OPERATIONAL ACCESS (4)



USE CASE 3

FMP plays the role of one/several TWRs with the same airport type (all TWR CDM or non CDM)

OPERATIONAL ACCESS (5)



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USE CASE 4

FMP plays the role ${}_{\! \rm I}\!$ of several TWRs including different airport types

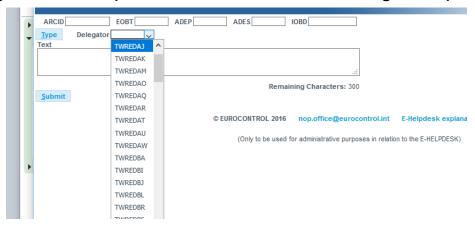
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3 - Change



Overview of the change

 This CR will permit relevant FMPs to declare the TWR they are acting upon directly in one unique browser with the following set-up:



- The FMPs operating as FMP shall fill-in the request without any 'Delegator value'
- The FMPs operating as TWR shall fill-in the request AND the 'Delegator value'
- No impact on existing FMP tokens.

To facilitate the input of the 'Delegator' field, the application permits to search by typing the relevant TWR.

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4 - Deployment



New column (tracing the delegator):

| R | efresh Create | Setup | | | | | | | | | | | | | |
|----|----------------------------|--------------|--------|------|------|-------|-------|----------|-----|------|-------|---------|------|------------------|---------------------|
| My | Туре | Details | ARCID | ADEP | ADES | EOBT | стот | REGUL+ | DLA | MLAD | State | ANU | Туре | Delegator | Submitted |
| ~ | Request for Improvement |) | JNL963 | EDDB | EBBR | 08:37 | 08:51 | EBEEC05M | 8 | | | FMPEBBU | FMP | _ | 05/09/2019 10:13 |
| ~ | Request for Improvement |) | ICE68L | BIKF | EBBR | 07:40 | 07:51 | EBNWC05M | 0 | | | FMPEBBU | FMP | TWR_ACDM/TWREBBR | 05/09/2019 10:14 |

- The NM strongly recommends FMPs to:
 - Train your operational teams with the change.
 - Participate in the operational testing session (OPT)
 - Validate the list of delegated TWRs that application shows.
 - Report any incident following the normal OPT process.
- NM will remind FMPs acting as TWRs to participate in the OPT



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nm.releases@eurocontrol.int FB1029: eHelpdesk - NOM evolution

5 - How to use the service and best practices



It is strongly recommended to reduce to the minimum the use of the telephone coordination. The telephone coordination shall not be used to request TFI FPHONE improvements, exclusions from regulations or extensions requests before COBT-20 (exceptional reasons permit TWR to contact afterwards). o It is strongly recommended to use the electronic coordination means (B2B/NOP) to transmit the necessary requests. This has INTERFACE a beneficial effect on the treatment of most urgent requests. o FMP using electronic desk shall choose between B2B or NOP interface and never use the two channels simultaneously. Review the ATFCM manuals to understand when and where you are entitled to request helpdesk assistance. Remember that helpdesk requests have limited possibilities subject to Network capacity constraints. Train your operational staff with the new features and remind the TRAINING procedures and operational best practices.









6 – Future Helpdesk (iDAP)















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Any questions?





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FB1022: ATFCM Domain improvements





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CR_045506 : FAM parameter reduction 3rd (final) step of the reduction of the FAM parameter from 20 to 15 minutes

- Unlikely to be implemented in NM23.5
- To be confirmed at a Go/No-Go Webex by NM and the stakeholders on the 17th September 13:00 Brussels local time.

- FAM related information is available at: https://www.eurocontrol.int/system/enhanced-tactical-flow-management-system
- Or contact: nmfamreduction@eurocontrol.int



Any questions?



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FB1017: TCO alerting function







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1- Stakeholders impacted

- Airspace User (Civil)
- Airspace User (Military)
- CFSP
- CAA / EASA / EC
- Non-CDM Airport
- CDM-Airport
- ARO
- Air Navigation Service Provider (ANSP)

| | Service affected | | | | | | | | | | |
|----------------|------------------|-----------|-------|--|---------------------------------|--|--|--|--|--|--|
| FB1017 | Flight Planning | Reporting | Other | | | | | | | | |
| Internal | | | | | | | | | | | |
| computation | | | | | | | | | | | |
| Data structure | | | | | | | | | | | |
| User Interface | | | | | | | | | | | |
| Procedures | | | | | | | | | | | |
| Training | | | | | | | | | | | |
| B2B | | | | | | | | | | | |
| Other | | | | | Reception of TCO alert messages | | | | | | |

nm.releases@eurocontrol.int FB1017: TCO alerting function

2- Background – Why



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The European Union has centralised the process to authorise third-country (non-EU) operators (TCO) performing commercial air transport operations into the EU,

NM already operate the TCO Alarming service on behalf of the EU. During the operational testing phases and since the operation deployment of the TCO Alarming service, when an Alarm is triggered and EASA contact the relevant Aircraft Operator, the conversation can be difficult due a lack of Aircraft Operator understanding of the Alarming process.

The European Commission (EC) has requested that the Network Manager implements an update to the current TCO Alarming system to deliver TCO alert messages to the Aircraft Operators.

nm.releases@eurocontrol.int FB1017: TCO alerting function

3- New features



- The NM TCO Alarming System will be changed to send TCO Alert messages to the Flight Plan originator and the associated Airlines via AFTN/SITA communications networks.
- For flights that have been alerted for and are active in IFPS, the alert shall be cancelled if a TCO authorisation is received.
- Alerts shall not be sent to the originator of airborne flight plan updates from ATC (AFP/FNM/MFS messages).
- There is no NM B2B service for TCO alerting.

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Example of Alert:

This alert is generated by the EUROCONTROL Network Manager TCO alarming function.

This message is sent on behalf of the European Community Regulation (EU) 452/2014 participating Member States, and the European Commission.

The following flight has been identified as not having the correct TCO authorisation:

AIRCRAFT IDENTIFICATION : MAS4C
AERODROME OF DEPARTURE : WMKK
AERODROME OF DESTINATION : EGLL
DATE OF FLIGHT : 190902
ESTIMATED OFF BLOCK TIME : 1150

FPL IDENTIFICATION : AT00227152

Further information concerning this message and associated procedures is available at: http://www.easa.europa.eu/faqs/tco

nm.releases@eurocontrol.int FB1017: TCO alerting function





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 The NM TCO Alarming System shall send TCO Alert messages to the Flight Plan Originator and the associated Airlines via AFTN/SITA communications networks if a FPL is filed for a flight that is identified as not having the correct TCO authorisation.

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Any questions?



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FB1020: Flight Planning Domain improvements

Includes critical bug fixes





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1- Stakeholders impacted

- Airspace User (Civil)
- Airspace User (Military)
- AO or CFSP
- Non-CDM Airport
- CDM-Airport
- ARO
- Air Navigation Service Provider (ANSP)

| | Service affected | | | | |
|----------------------|------------------|------|--|-----------|-------|
| FB1020 | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other |
| Internal computation | Yes | Yes | | | |
| Data structure | Yes | Yes | | | |
| User Interface | Yes | Yes | | | |
| Procedures | Yes | Yes | | | |
| Training | Yes | Yes | | | |
| B2B | Yes | Yes | | | |
| Other | | | | | |

Internal computation: Change in the way the various parameters exposed to externals (eg. CTOT) are computed.

2- Background - Why



- Change IFPS behaviour as requested by the EUROCONTROL NM Stakeholders.
- Fixes to software deficiencies.

3- New features



FB1020 - Do not report error for invalid alternate aerodrome

The current check in IFPS is not according to ICAO provisions and there are cases when the ALTN needs to be the same as the ADES (e.g. large airports with multiple runways or flight planning software limitations).

With this new software release, IFPS shall not raise an error when the filed Alternate Aerodrome (ALTN) matches the filed Destination Aerodrome (ADES).

The following FPL will not raise an EFPM228 error:

3- New features



Critical bug fixes #1 - IFPS accepts IFR as requested cruising level (12_117070)

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 incorrect filing:

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

-0)

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3- New features

Critical bug fixes #2 - IFPS/ETFMS messages with invalid characters (12_116122)

- 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 the new release, 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)
- NM Release Notes will be updated accordingly.

4- Impact of the changes



- A FPL that used to be rejected when filing an ALTN that is the same as the ADES will no longer be rejected.
- Flight plan originators that use the invalid format of "IFR" as a requested cruising level will receive reject messages from IFPS.
- Systems that receive IFPS REJ messages and/or ETFMS FLS messages may need to adapt to cope with the change in characters.



Any questions?



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FB1023: NM B2B Flight Management Improvements







1- Stakeholders impacted

- Airspace User (Civil)
- Airspace User (Military)
- AO or CFSP
- Non-CDM Airport
- CDM-Airport
- ARO
- Air Navigation Service Provider (ANSP)

| | Service affected | | | | | |
|----------------|------------------|------|--|-----------|-------|--|
| FB1023 | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other | |
| Internal | | | | | | |
| computation | | | | | | |
| Data structure | Yes | | | | | |
| User Interface | | | | | | |
| Procedures | Yes | | | | | |
| Training | Yes | | | | | |
| B2B | Yes | | | | | |
| Other | | | | | | |

2- Background – Why



- Align NM B2B with the changes made to the NOP/CHMI in the last software release.
- Request from airlines for B2B functionality.
- NM B2B Web Services evolution.

3- New features



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).





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- New features



When subscribing to ORMs via B2B it shall be possible to filter ORMs based on:

Message originators

It shall be possible to specify a list of message originator ANU ids, and only ORMs related to FPM messages filed from such originators shall match the subscription.

Aircraft Operators

It shall be possible to specify any combination of the following aircraft operator filters:

- aircraft operators derived from ARCID (field 7b)
- aircraft operators derived from OPR/ subfield (field 18)
- operating aircraft operators
 This list shall match the aircraft operator derived from the OPR/ subfield and only in case this is missing, with the aircraft operator derived from ARCID.

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3- New features

When subscribing to ORMs via B2B it shall be possible to filter ORMs based on:

Message types

It shall be possible to specify a list of ATS message types (e.g. FPL, CHG, ARR, DEP, RQP, etc.), and only ORMs related to such message types shall match the subscription

Processing status

It shall be possible to specify the kind of processing status to be notified about:

- automatic ACK from IFPS
- automatic MAN from IFPS
- automatic REJ from IFPS
- manual ACK from operator
- manual REJ from operator





The changes will impact only users deciding to make use of the new B2B features.



Any questions?



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FB1010: FF-ICE filing Function - file eFPL





Impact of the FB



• Stakeholders impacted:

AO or CFSP

| | Service affected | | | | |
|----------------|------------------|------|--|-----------|-------|
| FB 1010 | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other |
| Internal | | | | | |
| computation | | | | | |
| Data structure | Yes | | | | |
| User Interface | | | | | |
| Procedures | Yes | | | | |
| Training | Yes | | | | |
| B2B | Yes | | | | |
| Other | | | | | |

FB1010: FF-ICE filing Function - file eFPL

Topics



- Implementation planning high level overview
- Supported services
- Improvements in NM23.5



NM FF-ICE Implementation Plan – High level

- FF-ICE/1 phase 1
 - Filing service NM21-NM24
 - eFPL filing by AO/CFSPs to NM
- FF-ICE/1 phase 2
 - eFPL distribution NM23-NM24
 - Planning service NM24-NM25
- FF-ICE/1 phase 3
 - Planning service with ATC reply to NM NM24-NM25





- Initial FF-ICE Trial Service
 - Flight Plan Validation
- Initial FF-ICE Filing Service
 - Flight Plan Creation
 - Flight Plan Update
 - Flight Plan Cancellation
- Initial FF-ICE Flight Data Request Service
 - Flight Retrieval
 - to obtain all data available about that flight
 - Filing Status
 - to obtain the status of their own flight plans(s) e.g. when MAN was received as reply to eFPL file

Services over current NM B2B and using FIXM4.1

FF-ICE Services
NM B2B services





- Support Structured route/trajectory elements as standalone
 - Structured route information without trajectory details
 - Three options available to users:
 - RouteText (today's Item 15 of the FPL), or
 - · 'Structured Route', or
 - 'Structured Route' and Trajectory information
- Support mixed flight rules (i.e. IFR/VFR) indication in the structured route/trajectory elements
 - To indicate VFR portions of the flight if any
 - NM23 info provided in the RouteText information = 'free text' data

Documentation



- NM
 - NM B2B Reference Manual https://ost.eurocontrol.int/sites/B2BWS/default.aspx
 - Flight Services, FIXM Validation Rules for NM B2B, etc.
 - NM Release Notes for NM23.5
 - FF-ICE/R1 Extended Release Notes
- FIXM CCB (<u>www.fixm.aero</u>)
 - FIXM Implementation Guidance
- ICAO (https://portal.icao.int/icao-net/Pages/default.aspx)
 - PANS-ATM (Doc 4444)
 - FF-ICE Manual (Doc 9965)
 - Vol. 1 FF-ICE Concept
 - Vol. 2 (New) Implementation Guidance



Any questions?







CR_046926: Display PTRs in CHMI map (vertical view)







1- Stakeholders impacted

- Flow Manager (FMP)
- Airspace Manager (AMC)
- Airspace User (Civil)
- Airspace User (Military)
- AO or CFSP
- Air Navigation Service Provider (ANSP)
- Any CHMI, CIAM, CIFLO, CITO and CIAO user

| CR_046926 | Service affected | | | | |
|----------------------|------------------|------|--|-----------|-------|
| | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other |
| Internal computation | | | | | |
| Data structure | | | | | |
| User Interface | Yes | Yes | | | |
| Procedures | | | | | |
| Training | | | | | |
| B2B | | | | | |
| Other | | | | | |



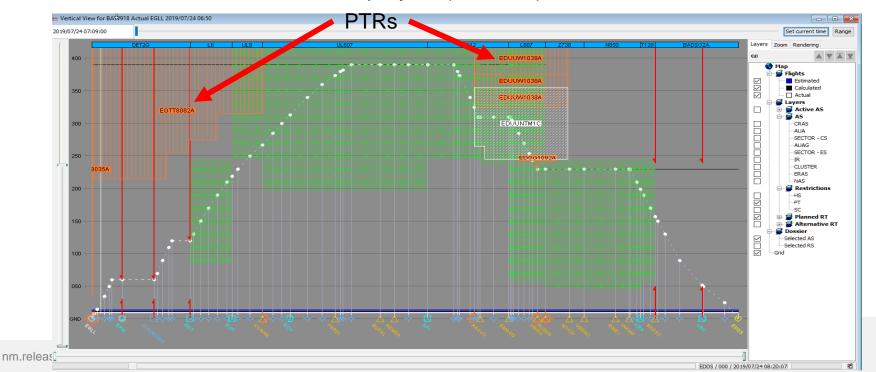
2- Background – Why

- In NM23.0, PTR (Profile Tuning Restriction) information are not displayed in the vertical view of the CHMI (ATFCM application).
- Nevertheless, this information is useful for some categories of users.

3- New feature

 CHMI User will have the choice to display or not PTRs in the <u>vertical view</u> of the <u>ATFCM application</u>.

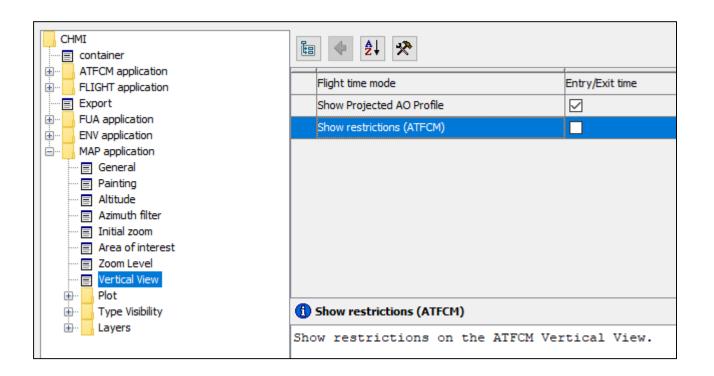
When displayed (NM23.5):





3- New feature

- This choice will be done using the CHMI preferences:
 - MAP application ⇒ Vertical View ⇒ Show restrictions (ATFCM [application])



4- Impact of the FB



- By default, preference will be set to NOT display PTR.
- With the option selected, the display of the vertical view can take up to 30 seconds per PTR.



Any questions?



Supporting European Aviation



QRV: Modification to the Query Replay Viewer application

Replay queries in the past





1- Stakeholder impacted



Flow Manager (FMP) using the Query Replay application

| QRV | Service affected | | | | |
|----------------|------------------|------|--|-----------|-------|
| | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other |
| Internal | | | | | |
| computation | | | | | |
| Data structure | | | | | |
| User Interface | | | | | |
| Procedures | | | | Yes | |
| Training | | | | | |
| B2B | | | | | |
| Other | | | | | |

2- Background

The CHMI Query Replay Viewer is a stand-alone CHMI with only the QueryReplay application embedded.



It allows FMPs to query historical traffic up to 2 years in the past.

3- Changes

- Users who want to replay queries may have to keep the former versions of Query Replay Viewer installed on their machine:
 - To replay queries after 15 October 2019, use the operational CHMI (version 15.5)
 - To replay queries between 01 May 2019 and 15 October 2019, use the CHMI Query Replay Viewer version 15.0.5.5
 - To replay queries between 02 May 2018 and 30 April 2019, use the CHMI Query Replay Viewer version 14.5.5.4
- Cf. NM Release Notes §4.4.8

4- Impact

- Users will have to choose various Query Replay Viewer versions depending on the timeframe of their queries.
- Each Option2-PC (ie managed by NM) will have 3 Query-Replay Viewer installed:
 - Standard CHMI
 - CHMI Query Replay Viewer version 15.0.5.5.
 - CHMI Query Replay Viewer version 14.5.5.4.
- Other users (managing themselves the CHMI installation) will have to keep the appropriate version of the Query Replay Viewer installed.



Any questions?



Supporting European Aviation



INC0082419: Improvement of the CHMI "Restore Workspaces All" feature







1- Stakeholders impacted

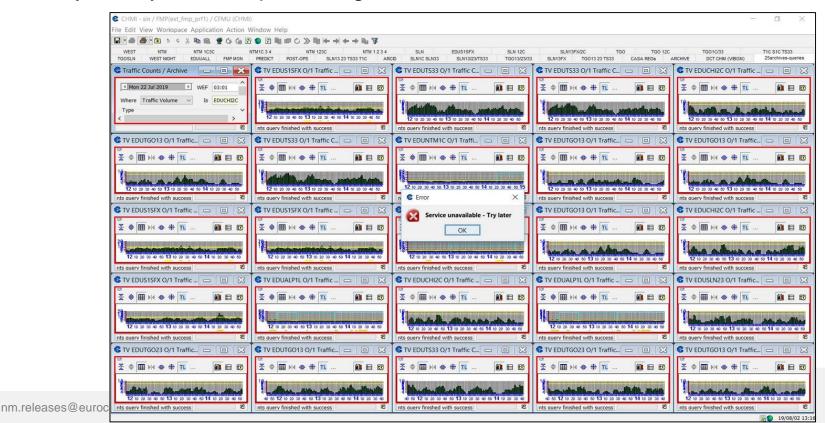
- Flow Manager (FMP)
- Airspace Manager (AMC)
- Airspace User (Civil)
- Airspace User (Military)
- AO or CFSP
- Air Navigation Service Provider (ANSP)
- Other: Any CHMI, CIFLO, CITO, CIAO and CIAM users

| INC0082419 | Service affected | | | | | |
|----------------|------------------|------|--|-----------|-------|--|
| | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other | |
| Internal | | | | | | |
| computation | | | | | | |
| Data structure | | | | | | |
| User Interface | Yes | Yes | Yes | Yes | | |
| Procedures | | | | | | |
| Training | | | | | | |
| B2B | | | | | | |
| Other | | | | | | |

2- Background - Why



- CHMI users (including CIAO, CITO, CIFLO and CIAM) may store their workspaces (tabs) and restore them later (menu Workspace ⇒ Restore ⇒ All)
- Each Workspace may contain many windows.
- Some users store more than 15 workspaces, with more than 10 windows in each of them.
- Restoring these workspaces could trigger an "Service unavailable" error raised by NM systems to protect against overload.



3- New feature



 To avoid this error, there will be an intentional "pause" of 0.2 second between the launch of each workspace

4- Impact of the FB

- In comparison with the previous version, launching the "Restore All" feature will be slower by around 2 to 5 seconds.
- The "Service unavailable" error will no longer be raised when using the "Restore All" feature. This feature is usually used once at startup.

For best CHMI performance, NM recommends to limit the number of Windows per Workspace to maximum 16



Any questions?



Supporting European Aviation



FB1021: Airspace Data Domain improvements







1- Stakeholders impacted

ENV data providers

| FB1021 | Service affected | | | | | |
|----------------------|------------------|------|--|-----------|-------|--|
| | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other | |
| Internal computation | | | Yes | | | |
| Data structure | | | | | | |
| User Interface | | | Yes | | | |
| Procedures | | | Yes | | | |
| Training | | | Yes | | | |
| B2B | | | | | | |
| Other | | | | | | |

• Internal computation: Change in the way the various parameters exposed to externals (eg. CTOT) are computed.

2- Background – Why



- Short background of the FB:
 - Only enabled data objects can be sent to SIMEX for testing/evaluation today.
 - Disabled objects had to be enabled and would also be enabled in the OPS database possibly causing active false constraints.
 - New status flag "Prevalidation" (in addition to enabled/disabled).
 - We will now be able to validate the following more accurately:
 - Prevalidation objects e.g. Restrictions (RS) can be tested and evaluated in SIMEX
 - Prevalidation Restrictions will be adapted to the referenced dependant applicability.
 - Bulk Restriction Renaming
 - Existing AD DCT restrictions do not always adhere to the published naming convention.
 - Bulk renaming is to be anticipated
 - Departure DCT restriction Id will be e.g. EBBR5D
 - Arrival DCT restriction Id will be e.g. EBBR5A
 - ATC units could until now only be responsible for 1 ATC Unit Airspace.
 - E.g. A tower (TWR) could be responsible for a single aerodrome.
 - E.g. Now a TWR or APP can be responsible for the FPLs of more than one aerodrome.

3- New features



- New Object Status "Prevalidation"
 - Prevalidation objects e.g. Restrictions can be tested/evaluated in SIMEX.
 - Prevalidation Restrictions will be adapted to the referenced dependant applicability when tested in SIMEX.
- All AD DCT restrictions will respect the naming convention.
- ATC units can now be responsible for more than one ATC Unit Airspace.



3- New features

NM plans to allow in CACD Aerodromes with no ICAO or IATA identifier.

Why: To align with the European Aeronautical Database (EAD) and prepare for VFR flight planning in the future.

- CR_040712: As from NM23.5, CACD will be populated with new aerodromes that may have no ICAO and/or IATA identifiers.
- NM will generate identifiers for these Aerodromes (rules available in the NM Release Notes).
- These aerodromes will be exported via NM B2B.
- Flight plans and related messages output in ICAO or ADEXP format remain unchanged still using ZZZZ for these ADs.
- See NM Release Notes §4.1.3 for more information.

4- Impact of the FB



 Impact for external clients limited to a bulk renaming of the DCT restrictions at the beginning of the first AIRAC after the Release of NM 23.5.



Any questions?



Supporting European Aviation



FB1036: CASTAR improvements









- Airspace User (Civil)
- Airspace User (Military)
- ENV data provider
- AO or CFSP

| FB1036 | Service affected | | | | | |
|----------------|------------------|------|---|-----------|-------|--|
| | Flight Planning | Flow | Aeronautical Information/ AS data | Reporting | Other | |
| Internal | | | Yes | | | |
| computation | | | | | | |
| Data structure | | | Yes | | | |
| User Interface | | | Yes | | | |
| Procedures | | | Yes | | | |
| Training | | | Yes | | | |
| B2B | | | Yes | | | |
| Other | VFR Restriction | | | | | |

• Internal computation: Change in the way the various parameters exposed to externals (eg. CTOT) are computed.





Aerodrome (AD) Flight Rules Timesheet alignment.

- Some Flight rule timesheets in Annex 15 contain expressions like Sun Set (SS)+10 or 1700 UTC which ever is earlier.
- FPL Flight Rules (FR) validation at ADEP/ADES are now based on inaccurate times
- Incorrect calculation of timesheets.
- EAD download requires manual corrections.



3- New features and impact of the FB.

- FPL FR at ADES/ADEP validation enhancement.
 - SR/SS reference tables
 - More accurate time derivation at any desired location
 - Correct calculation of VFR/IFR operations time sheets also taking complex expressions into account.



Any questions?







FB1016: NM airspace data model evolution (Introduction of IAPs into CACD)







1- Stakeholders impacted

ENV data provider (Env Coordinators).

| FB1016 | Service affected | | | | | |
|----------------|------------------|------|--|-----------|-------|--|
| | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other | |
| Internal | | | | | | |
| computation | | | | | | |
| Data structure | | | Yes | | | |
| User Interface | | | Yes | | | |
| Procedures | | | Yes | | | |
| Training | | | Yes | | | |
| B2B | | | | | | |
| Other | | | | | | |

2- Background – Why



- Short background of the FB:
 - Align Approach Procedures (AP) with the (NM combined concept of STAR and Instrument Approach Procedures (IAP)) with the Aeronautical Information Exchange Model (AIXM).
 - Seamless download of Annex 15 Data from the European Aeronautical Database (EAD).
 - Split the artificially merged concept of AP into STAR and IAP.
 - Enhance the concept of Initial Approach Fix (IAF).
 - More accurate description of IAP.
 - Abandon the NM AP/Departure Procedures (DP) synonym concept.
 - No more STARs hidden behind other STARs of the same AD.
 - Rename Departure Procedure (DP) to SID.

3- New features



- The changes are transparent to most users.
- Only the Environment Coordinator's (ENVCOORs) will be directly affected by the new (CACD) concept of IAP
- NM B2B users of airspace data will only be impacted from NM24.0 onwards.

4- Impact of the FB



No impact for externals except ENVCOOR (Env Coordinators).



Any questions?



Supporting European Aviation



FB1044: FRA Improvements (NPZ)







1- Stakeholders impacted

- ENV data provider
- Flight Planning

| | Service affected | | | | | |
|----------------------|------------------|------|--|-----------|-------|--|
| FB1044 | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other | |
| Internal computation | | | | | | |
| Data structure | Yes | Yes | Yes | | | |
| User Interface | | | | | | |
| Procedures | | | | | | |
| Training | | | | | | |
| B2B | Yes | Yes | Yes | | | |
| Other | | | | | | |

2- Background – Why



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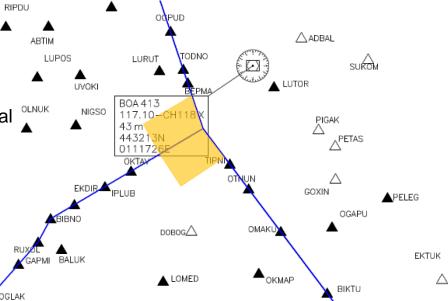
Short background of the FB:

 In Free Route Airspace (FRA) short crossing of multiple ATC airspaces is not protected anymore by the design of the Air Routes

 Short crossing of multiple ATC airspaces creates complex situations for ATC control resulting in high workload

 Relevant zones unavailable for flight planning are currently established to protect operationally sensitive areas

 The first instances of "No Planning Zones (NPZ)" are already published on the NOP portal in Word and PDF files.



3- New features



101

- New Airspace Subtype NPZ.
 - No Planning Zone.
 - Behaves like any other restricted Airspace.
 - Has availability/activation timetable.
 - Identifier ccNPZnnn,
 - e.g. "LENPZ1"
 - · cc: Country Code,
 - nnn: number 1..999
 - Restrictions with NPZ as reference location can have dependant applicability.
 - Export NPZ and associated Restrictions via B2B.

4- Impact of the FB



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- Impact for external clients limited to
 - NPZ can be the reason of a FPL rejection.
 - NPZ restrictions will be in the B2B data.



Any questions?



Supporting European Aviation



FB1024: ASM - Advanced FUA process improvements





1- Stakeholders impacted

Airspace Manager (AMC)

| FB1024 | Service affected | | | | | |
|----------------|------------------|------|--|-----------|-------|--|
| | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other | |
| Internal | | | | | | |
| computation | | | | | | |
| Data structure | | | | | | |
| User Interface | | | | | | |
| Procedures | | | | | Yes | |
| Training | | | | | | |
| B2B | | | | | Yes | |
| Other | | | | | | |

2- Background – Why



- Short background of the FB:
 - Several member States requested more flexibility and new capabilities in order to better apply the AFUA process.
 - The objective is to provide more flexible solutions to manage airspace structure data via AUP/UUP.

3- New features

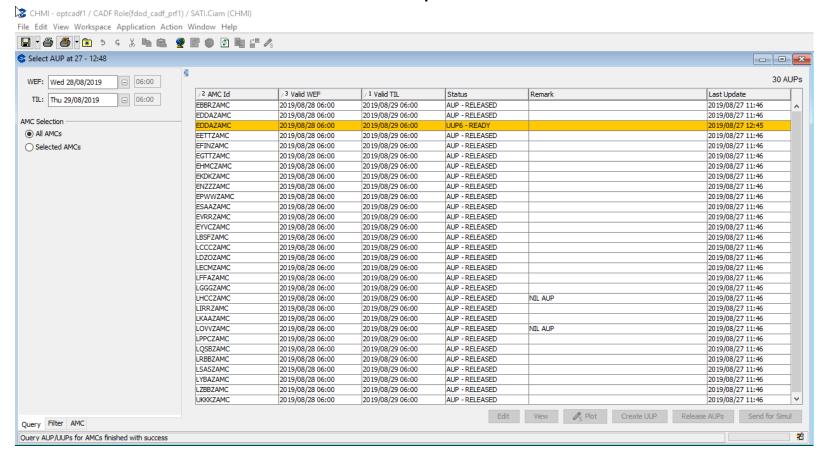


- FB1024: CR_044037 Alert for P3 (Procedure 3) request
- CADF/MILO staff will receive a warning/alert in case that an AMC inserts a P3 request in a draft UUP.
- P3 request additional airspace and/or route closure.



3- New features

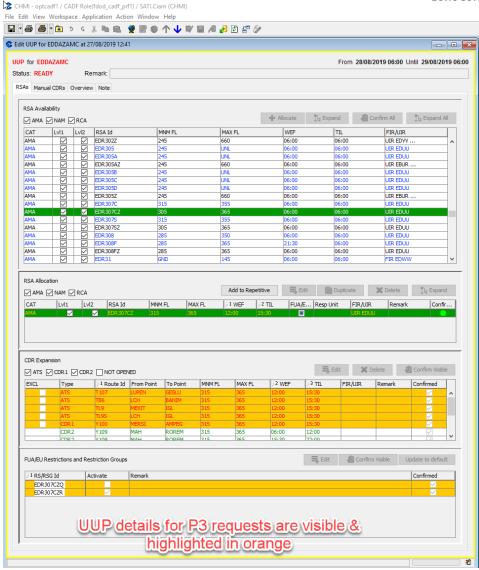
FB1024: CR_044037 Alert for P3 request





3- New features

 FB1024: CR_044037 Alert for P3 request



4- Impact of the FB



- Impact of the FB on externals:
 - CIAM
 - Automatic detection of P3 requests by the system will replace the current manual process of communicating such a request.
 - NM B2B users: returns P3 request(s) flag(s).



Any questions?



Supporting European Aviation



FB942: RAD@n-CONECT





1- Stakeholders impacted



- Air Navigation Service Provider (ANSP)
- National RAD Coordinators, Local RAD Coordinators
- NM RAD Team

| FB942 | Service affected | | | | | | |
|----------------------|------------------|------|--|-----------|-------|--|--|
| | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other | | |
| Internal computation | | | | | | | |
| Data structure | | | | | | | |
| User Interface | | | Yes | | | | |
| Procedures | | | Yes | | | | |
| Training | | | Yes | | | | |
| B2B | | | | | | | |
| Other | | | | | | | |

2- Background - Why



Today the RAD is coordinated by e-mail and letter exchanges and these exchanges are consolidated into an Excel document. The new application aims to provide a modern collaborative user interface which comes amongst many others with a grammar, user friendly forms, history, restriction plotting, collaborative features and a workflow capability.

It replies to the business need of providing effective services to all stakeholders at a reduced cost

Benefits are increased usability and less maintenance as the data is stored centrally in a database. It also provides the user with plotting capabilities linked to other applications such as to Airspace easing collaboration.



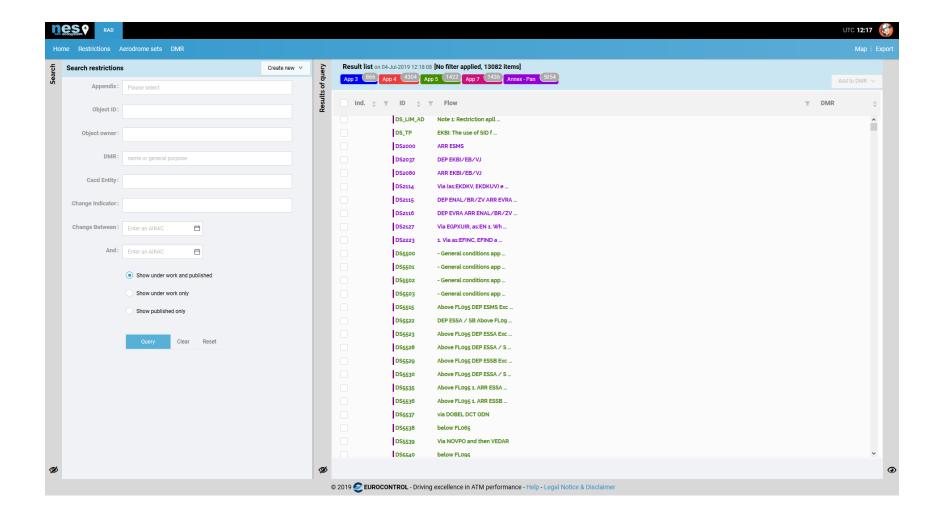
3- Features of the new application

- Manage (create, update with a workflow, query and retrieve) RAD DMR with a history
- Manage (create, update with a workflow, query and retrieve) RAD Restrictions with a history
- Plot restriction details on the Map
- Notifications and subscription to changes
- Sanity checks
- Attachments

- Formal Textual Expressions/Grammar to RAD restrictions
- Compare and Highlight changes
- Comes with the Airspace application
- Export to Excel

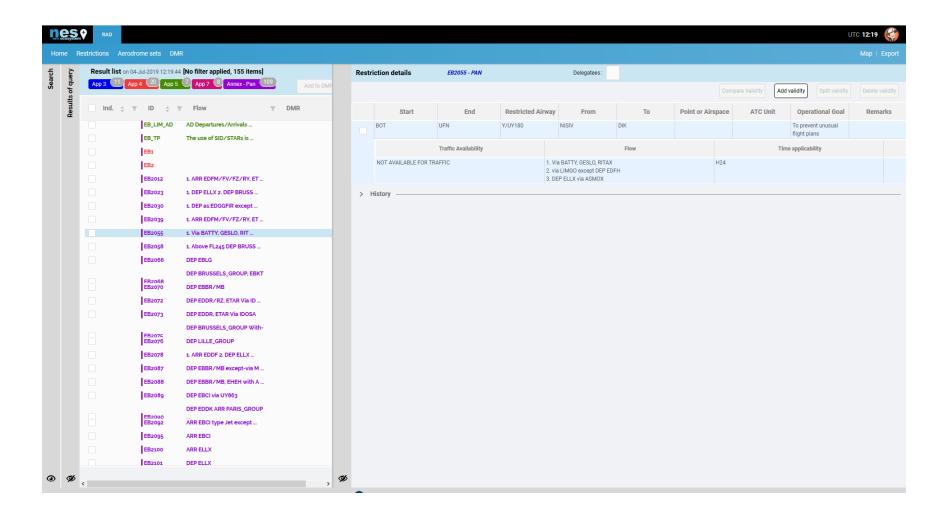


Screenshots: Restriction query and result





Restrictions details





4- Impact of the FB

- National RAD Coordinators and Local RAD Coordinators will use the application to maintain the information and to initiate changes
- The NM RAD team will validate the changes and will provide NM AD with RAD data
- Other users may browse the RAD database (NEC, later AO)
- Procedures shall be established locally how the tool will be used between LRC, NRC and between the NRC and NM RAD during transition and in later use.
- No real system impact expected as the application will run from a browser

5- Other information



There is no need for local installation anymore however its usage requires PENS or internet

Existing tokens for the login will be used, or new tokens were requested

It comes with a full help and a manual

Trainings are also provided

6- Possible next steps



Corrections and tuning from the initial version

RAD export/import directly to/from CACD

UI improvements



Any questions?



Supporting European Aviation



FB943: Airspace application





1- Stakeholders impacted



- Air Navigation Service Provider (ANSP)
- ENVCOOR

| FB943 | Service affected | | | | | | |
|----------------|------------------|------|--|-----------|----------------|--|--|
| | Flight Planning | Flow | Aeronautical Information/AS data | Reporting | Other | | |
| Internal | | | | | | | |
| computation | | | | | | | |
| Data structure | | | | | | | |
| User Interface | | | Yes | | Replaces CIREN | | |
| Procedures | | | | | | | |
| Training | | | | | | | |
| B2B | | | | | | | |
| Other | | | | | | | |



FB943 replaces CIREN It provides the same functionality however with improved usability, ergonomy and a better map

There is no need for local installation anymore however the use requires PENS or internet

Existing tokens for the login will be used

FMPs, TWR, ANC and AOs will continue to use the existing CHMI (CIFLO, CITO, CIAO, CIAM)

FMPs, TWR, ANC and AOs will upgrade at later releases

Local documentation if contains screenshots might require an update

2- Background - Why



The application was developed as part of the n-CONECT programme which aimed to merge all existing NM interfaces

It replies to the business need of providing effective services to all stakeholder at a reduced cost

Expected benefits are increased usability and less maintenace, later stage integrated CDM workflow with the stakeholders

3- New features



The new application will run from a web browser (Chrome preferred)

No local installation required, therefore less maintenance.

Improved Map

Better organised more logical User Interface which will increase productivity

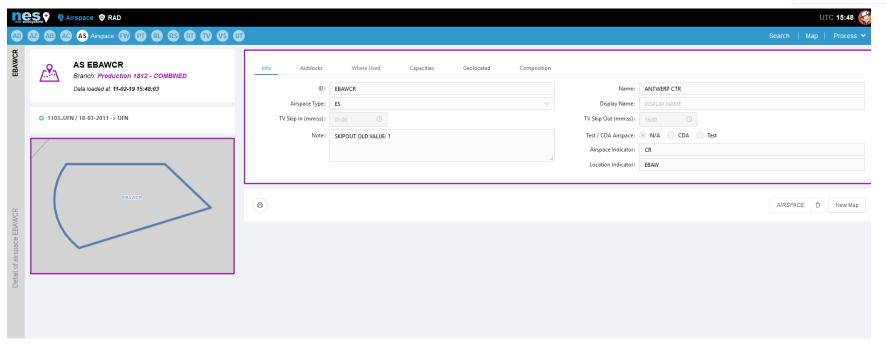
Better use of multiple screens and maps. It provides the possibility to save user queries, name certain maps, and there new way to handle the map dossier

New feature: contains Sunset, Sunrise values

Is it possible to display elaboration and production braches of airspace data

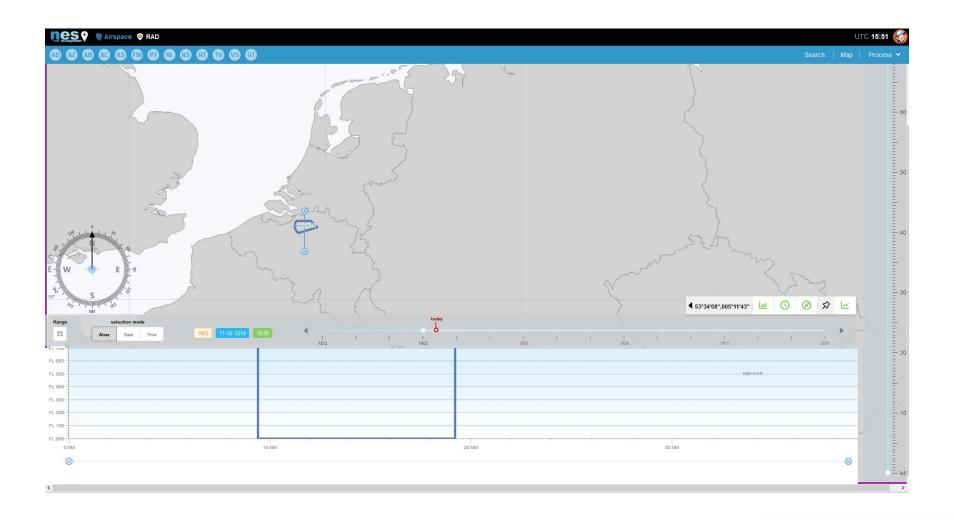


Screenshots





Map screenshot with vertical view, level band and azimuth filter, and with a timeline





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Inclusion of a workflow (similar to RAD)

Comparaison between elaboration and production data

Better ENV dossier, redesigned CACD forms



Any questions?



Supporting European Aviation



NM23.5 Way Forward





NM23.5: The OPT (Operational Testing) (Release Notes §4.3.3)



NM23.5 is available for testing with the OPT (operational testing) session!

- NM23.5 OPT session is available until the 4th of October.
 - With the NM23.5 OPT you are able to:
 - Test NM23.5 on <u>your</u> systems with <u>your</u> procedures.
 - Download and test the new NM23.5 CHMI.
 - Test the new NM23.5 NOP Portal.
 - Test some new FBs (operational scenario provided in the OPT guide).
- NM OPT instructions (cf. Release Notes §4.3.3):
 https://www.eurocontrol.int/publication/operational-testing-instructions
- B2B: NM23.5 will be available on PREOPS as from the 24 September 2019 14:00 UTC (date modified, to be updated in the next version of the NM Release Notes)
- All you need is to already have access to NM systems. No registration required (unless you want to exchange FPL messages with OPT platform).

⇒ Questions: nm.opt@eurocontrol.int

Way forward to NM23.5 migration



- NM23.5 migration is planned to start on the 15/10/2019 (last around 1 week)
 - Detailed Release migration plan may be found in the NM Release Notes (§4.3.4).
 - As for any release, the date of migration is subject to the output from final technical and operational testing.
- To receive information on the Release (including NM Release Notes updates, OPT information, presentations, etc.): subscribe to the mailing (cf. §1 of the NM Release Notes)

Any question related to the Release: nm.releases@eurocontrol.int



Any questions?





Many thanks for your participation!

