



NM-25.1 RELEASE NOTES

Edition: 1
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IMPORTANT NOTIFICATIONS

- **From early 2022 onwards:**
 - **NM will no longer support Microsoft Windows 10 32-bit;**
 - **The only supported OS will be Microsoft Windows 10 64-bit.**
More on information on supported browsers and operating systems at 5.3.

DOCUMENT CHARACTERISTICS

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NM-25.1 RELEASE NOTES	Use pop-up to enter value.	1	25/02/2021
Abstract			
<p>This document describes the new and modified functions (affecting external users) delivered by NM as part of the NM-25.1 software release.</p> <p>This document is available at: https://www.eurocontrol.int/publication/network-manager-release-notes-planned-implementation-2021-2022</p>			
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Edition History

The following table records the complete history of the successive editions of the present document.

Changes in this edition are emphasised **in this colour**.

Edition No.	Edition Validity Date	Reason
1	25/02/2021	Initial edition

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1 Introduction

NM releases include many changes arising from different sources and coordinated via various fora. They allow the development and deployment of new functionalities, which implement the NM business plans.

The NM release notes are designed as a rolling document, moving progressively from pre-release notes (probable contents) to actual release notes, to provide NM service users with an early view of changes, being refined as the release software is developed. This rolling view is aimed at helping NM users to anticipate and assess the impact and opportunities on their operational procedures and/or systems.

With that purpose, this document describes all changes of the NM system delivered by NM as part of the **NM-25.1** software release, since all NM system changes can potentially affect operations of external NM service users. However, these changes are organised so that direct functional changes are presented first, then other changes, as they are also of interest for externals, otherwise they would not be implemented: changes for NMOC only, studies and technical changes.

From NM-25.0 onwards, NM deploys:

- One major release per year, called xx.0, e.g. 25.0, through which most functional developments of the year are delivered
- One or more minor releases, called xx.y (where $y > 0$), e.g. 25.1, 25.2, etc., in which corrections and tuning are provided, and possibly some functional improvements of the NM HMI – in particular, the B2B interfaces cannot be changed in a minor release

It boils down from the above that the xx.5 releases do not play any special role anymore in the NM release scheme.

For a major release, the first edition of the NM release notes is published around 6 months before the corresponding major release deployment, and the last one around the deployment of the major release.

The publication of the release notes for a minor release or a planned patch increment usually takes place a few weeks before deployment.

Users who wish to automatically receive by email the new editions of the NM Release Notes (and other communications related to the NM releases) are invited to register at:

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

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

Questions or comments related to this document, or to the NM releases in general, should be sent to:

nm.releases@eurocontrol.int

2 User's Guide of the NM Release Notes

2.1 Versioning

The NM Release Notes editions are published independently of each other (not as a “rolling” document).

The editions are published with their version number clearly indicated in their title and body.

2.2 Document Structure

Chapter 3, named Network Development Programmes, reminds the reader about the programmes currently under development, which may bring changes to the NM systems in every NM release.

The context being set, the document provides all available schedule information and notifications regarding the NM release in chapter 4, and the release contents in chapter 5.

Useful references are provided in chapter 0, and abbreviations used across this document in chapter 7.

2.3 Focus on NM B2B

Given the high and rising importance of NM B2B for many NM stakeholders, specific sections dedicated to NM B2B have been developed within section 5.6.

2.4 Description of Changes and Enhancements

The definition of a “Change or Enhancement” (“CE” below in the document) in a release is any feature that is changed or added as part of a release. It is a generalisation of the NM traditional change concepts, namely FB, CR, SB, TB and Incidents.

CEs are described in a structured table, using the fields described below.

When the CE is an FB, its description is often refined via CRs, for example because the impacted users or applications are not the same – in that case, the pattern below is used to describe CRs of the FB.

CE...: Number and name of the Change or Enhancement	
Objective	Operational objectives of the CE
Description	Description of the main features of the CE
Users potentially impacted and/or interested	Specifies the categories of NM users potentially (directly) impacted by the CE, and/or potentially interested in the CE
NM applications and services changed	Lists the NM applications and services that are changed by the CE
Impact category on external users	Specifies whether the CE has a direct impact on external users, and if that is the case, the impact category
Impact description	Description of the impact on the external users, according to the impact category provided above
Impact on NM Service Specifications	Specifies whether the CE has an impact on the NM Service Specifications or not, or if an assessment is to be or being performed

Operational deployment plan	Specifies the way the CE will be deployed
Users' testing	Specifies how external users will be able to test the CE
Related documentation	List of links to the documents updated or to be updated following the deployment of the CE, or simply in relation with the CE

3 Network Development Programmes

This chapter provides a short description of the NM programmes that the NM developments are implementing.

The majority of these programmes are strategic developments, aiming to achieve the strategic objectives of the NSP (Network Strategy Plan), and are fully aligned with the ATM functionalities defined in the PCP (Pilot Common Projects) implementing regulation and the corresponding SESAR Deployment Programme.

Airport-Network Integration Strategic Project

The project addresses the full integration of airports and its operations as a component of the ATM network. The project contributes directly to the NSP Strategic Objective 4 (SO4) "Optimise Network Operations".

The project aims at minimising airport disruptions and delays, in particular during adverse conditions, and at setting up the collaborative processes and tools improving airport and TMA integration with ATM operations, thereby positively affecting the overall network, as well as local performance.

The project includes the following main areas:

- Improve flight plan/airport slot consistency
- Improve the airport related operational partnership, starting with the integration of AOPs into the Network Operations Plan (including Target Times)
- Implement the Advanced ATC Tower concept (tower with DPI messaging) and/or full Airport CDM

Airspace Management and Advanced FUA Strategic Project

The project addresses the coordinated airspace management improvements required to achieve the flight efficiency – and indirectly the capacity – RP3 and RP4 targets, both at network and local/FAB level. The project contributes directly to the NSP Strategic Objective 3 (SO3) "Optimise Network Design".

The project focuses on the implementation of improved ASM/ATFCM processes and on the Advanced Flexible Use of Airspace concept, combining operational procedures and technical systems support.

The project aims at:

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

The project includes the following main areas:

- ASM solutions to improve network performance
- Dynamic Airspace Configuration and CDM process
- Rolling process ASM/ATFCM process
- ASM operations in FRA environments
- ASM performance monitoring

Cooperative Traffic Management Strategic Project (CTM)

The project addresses the collaborative process of determining and implementing optimal solutions for network operations through continuous information sharing of individual and local preferences, by cooperation between actors in the planning and execution phases of ATM. The project contributes directly to the NSP Strategic Objective 4 (SO4) "Optimise Network Operations".

The project aims at optimising traffic delivery through a transparent cooperative approach involving all operational stakeholders in the ATM network: ATC, Airport, AU and NM operations. It is the interface between local and network operations and aims at improving tactical coordination processes, reducing the gap between planning and execution phases, and enabling the application of flight and flow-specific targeted ATFCM measures, including Target Time measures.

The project includes the following main areas:

- Flight Plan Predictability
- Short Term ATFCM Measures (STAM), including Scenario Management
- Target Times Operations
- Support to (extended) Arrival Sequencing
- Initial User Driven Prioritisation

European ATM Information Management System Strategic Project (EAIMS)

The project addresses the provision of a reference source of aeronautical and airspace data for use in ATM systems and operations, including flight operations and airport operations. The project contributes directly to the NSP Strategic Objective 2 (SO2) "Deploy and integrate interoperable and secure information management systems".

The project aims at providing a shared ATM Network Information Reference that allows planning of all stakeholders to be based on the same data and assumptions, that is the reference for any measure with network impact, and that supports any network-wide activity.

The project includes the following main areas:

- Airspace model evolutions of CACD for compliance with EAD
- Semi-automatic download of EAD data into CACD and associated processes and procedures
- Semi-automatic download of other context information to CACD (such as BADA)
- Improvements of airspace data management CDM processes

Flight Plan and Flight Data Evolution Strategic Project (FPFDE)

The project addresses the processes and systems required to elaborate and to share the 4D trajectory information for planning purposes, enabling better quality ATM planning across the European ATM Network. The project contributes directly to the NSP Strategic Objective 4 (SO4) "Optimise Network Operations".

The project aims at ensuring and coordinating a gradual implementation in a harmonised way of the ICAO Flight and Flow Information for a Collaborative Environment (FF-ICE) and the SESAR concept of Trajectory-Based Operations, while supporting all stakeholders in the transition.

The project includes the following main areas:

- FF-ICE/Release 1 Services, in support of pre-departure
- FF-ICE/Release 2 Services, in support of the airborne phase
- OAT flight plan integration
- VFR flight planning support
- Integration of EPP data

Free Route Airspace Strategic Project (FRA)

The project addresses the required NM system changes and undertakes airspace design, simulation and validation activities required for FRA implementation, as well as monitoring and reporting on implementation progress. The project contributes directly to the NSP Strategic Objective 3 (SO3) “Optimise Network Design”.

The project aims to support the implementation of the FRA concept, as described in the European Route Network Improvement Plan (ERNIP) Part 1 across the NM area.

The project includes the following main areas:

- Network performance and implementation scenarios
- Operations Support (modelling, design, simulations, trials, etc.)
- ATM systems and architecture in support of FRA
- Concept, procedures and change

NM OPS Service Platform Strategic Project (n-CONNECT)

The project addresses the provision of a platform supporting improved NM service interfaces, being the main focus put on the convergence to a single, redesigned HMI for all users, fit for purpose and flexible enough to meet the needs of the different user roles (both internal to NMOC and external). The project contributes directly to the NSP Strategic Objective 2 (SO2) “Deploy and integrate interoperable and secure information management systems”.

The project aims at setting up a new NM operational collaboration platform and related processes.

The project includes the following main areas:

- Platform development
- Service management
- Single HMI for internal and external users
- B2B Services migration and evolutions

Operations Improvements

Domain Improvements

Every release delivers improvements to the three NM operational domains:

- ATFCM
- Flight Planning
- Airspace

TCF (Transponder Code Function)

In accordance with the NM mandate for the TCF, CCAMS is operated on behalf of states as one of the possible technological solutions supporting the unambiguous and continuous identification of aircraft.

The final goal is to have the use of the downlinked aircraft identification (e.g. through Mode S) operational in the whole area with CCAMS as a back-up technology. Therefore CCAMS is implemented currently in 19 states and the number of users is expected to increase in the coming years.

Performance Strategic Project

The ATFM, NM and Performance IRs stress the need for Monitoring and Reporting (M&R) of performance. The aim of this programme is to provide the data and reporting (including data warehouse and NMIR) that address the M&R needs.

The programme includes a wide variety of activities such as: the adaptation of algorithms or databases, creation of new data sets, modification of interfaces graphical identity, and new reports following users' requests. The changes allow NM to fulfil its commitment on M&R, support other stakeholders with their M&R responsibilities and prepare NM for the next SES reference period.

4 Schedule

The following dates are tentative; they are meant to provide the user with an idea of the main events that take (took) place all along the release development, up to deployment.

These dates are mostly stabilised around 4 to 5 months before migration, but can still fluctuate a bit, in which case notifications are provided via a new edition of these NM Release Notes (see 4.1).

4.1 Important Notifications for Release Schedule

<None>

4.2 Deployment

Deployment Steps	2021											
	J	F	M	A	M	J	J	A	S	O	N	D
Migration (one day)							20					

4.2.1 Release Webinar

N/A – No Release Webinar for a minor NM release.

4.2.2 Network Operations Handbook

N/A

4.2.3 Operational Testing

N/A – No Operational Testing for a minor NM release.

4.2.4 Migration Details

The migration of NM systems from NM-25.0 to NM-25.1 will take place on 20/07/2021. Further details will be provided in due time (end of May).

5 Contents

5.1 Important Notifications for Release Contents

<None>

5.2 Naming Conventions

Naming conventions have been introduced to make the document easier to read:

- **AIXM: Means AIXM 5.1.1**

5.3 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 attempted to resolve on a best effort basis.

For all its client applications (web applications and CHMI), NM recommends the following operating system (OS):

- Microsoft Windows 10 (32-bit till the end of 2021(*))
- Microsoft Windows 10 (64-bit)

For these recommended OSs, NM undertakes to investigate and attempt to resolve problems – for any other OS (including Microsoft Windows 7) or OS version, issues will be analysed and attempted to resolve on a best effort basis.

(*) In order to give time for users to migrate from a 32-bit to a 64-bit version of Microsoft Windows 10, NM will support Microsoft Windows 10 32-bit until the end of 2021. However, from 2022 onwards:

- **NM will no longer support Microsoft Windows 10 32-bit;**
- **The only supported OS will be Microsoft Windows 10 64-bit.**

5.4 NM Service Specifications

NMD has created specifications that define the following services provided by the Network Manager:

- Airspace data
- Flight planning
- Flow and capacity management
- Central Code Allocation Management (CCAMS)

In addition, NMD has created a specification for the Radio Frequency Function (RFF).

These NM Service Specifications cover at a high-level the functionality, performance and interfaces with the environment as well as the definition of the degraded modes of the service delivery.

They support the agreements between the NM as service provider and other organisations and aviation undertakings as users of the services listed above.

The NM Service Specifications are available upon request to nm.sqs@eurocontrol.int.

5.5 Declaration of Suitability for Use (DSU)

The DSU is a formal document published by the NM that provides evidence that a defined constituent meets the applicable baseline.

The NM system in operations is represented by two constituents:

- The NM Business Systems
- The NM Client Layer

The applicable baseline consists of:

- The regulatory baseline, which defines the mandatory requirements specified in relevant EC regulations
- The Means of Compliance (MoC) baseline, which consists of voluntary standards and specifications that the NM uses to ensure compliance with the regulatory baseline

The DSUs contain traceability to the requirements and referenced documents that were used for conformity assessment.

The NM has created the DSUs for the two constituents of the NM system in operations for release NM-25.0, and will do so for each release in the future.

DSUs are available upon request to nm.sqs@eurocontrol.int.

5.6 NM B2B Focus

N/A

5.7 Airport-Network Integration Strategic Project

<None>

5.8 Airspace Management and Advanced FUA Strategic Project

<None>

5.9 Cooperative Traffic Management Strategic Project (CTM)

<None>

5.10 European ATM Information Management System Strategic Project (EAIMS)

5.10.1 CEs Having a Direct Impact on Operations of External NM Users

5.10.1.1 FB1190 – NMP RAD Evolutions, maintenance and adaptations to the RAD format

Objective	To adapt the NMP RAD application to latest agreed RAD format and bring usability improvements and defect corrections
Description	The RAD application is in operational use. This change to make some adaptations due to the change in RAD format. It also contains defect fixes and usability improvements
Users potentially impacted and/or interested	<ul style="list-style-type: none"> • Airspace Users • AO or CFSP • ANSP NRC • Internal NM RAD Team and NMOC/ADS
NM applications and services changed	<ul style="list-style-type: none"> • NMP RAD
Impact category on external users	<ul style="list-style-type: none"> • Impact on Human-Machine Interface
Impact description	NMP RAD User Interface and output format adaptations
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	No Operational Testing (minor release)
Related documentation	NMP RAD Manual and help

5.10.2 CEs Having an Indirect Impact on Operations of External NM Users, via NMOC

5.10.2.1 FB1167 – Airspace Download from EAD

Objective	Align CACD with published information – Improve interoperability – NMOC/ADS efficiency
Description	CACD Airspace data will be automatically compared to the EAD Airspace data, differences shown to NMOC/ADS, so that NMOC/ADS can efficiently import EAD Airspace data into CACD

5.10.3 Studies

<None>

5.11 Flight Plan and Flight Data Evolution Strategic Project (FPFDE)

<None>

5.12 Free Route Airspace Strategic Project (FRA)

<None>

5.13 NM OPS Service Platform Strategic Project (n-CONNECT)

5.13.1 CEs Having a Direct Impact on Operations of External NM Users

5.13.1.1 FB1150 – NMP Crisis Phase 1 (EVITA, AIREP, Info Hub)

Objective	To bring all Crisis related applications and information pages to NMP
Description	All existing Crisis applications and pages will be ported to the NMP: EVITA, AIREP, Crisis Map, Crisis procedures. A 2-phase approach has been chosen, and this FB is the first phase (the second phase is planned for NM-26.0).
Users potentially impacted and/or interested	<ul style="list-style-type: none"> All
NM applications and services changed	<ul style="list-style-type: none"> NMP Crisis
Impact category on external users	<ul style="list-style-type: none"> Impact on Human-Machine Interface
Impact description	All Crisis related applications will be centralised in the NMP
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	No Operational Testing (minor release)
Related documentation	NMP Crisis Manual and help

5.13.1.2 FB1114 & 1190 – NMP Flight (former AO App)

Objective	To replace and combine CIAO and NOP functionalities into the single new NMP Flight web application
Description	This application will bring a modern new interface and will combine the existing CIAO and NOP Aircraft Operator related functionalities into a single new interface/application. The main components of the application are the re-engineered and re-designed flight list, information hub, access to other NMP components (RAD, Airspace, Airspace map), integrated access to flight planning functions, e-Helpdesk (such as slot swapping, priority flights), flight profiles, etc.
Users potentially impacted and/or interested	<ul style="list-style-type: none"> Airspace Users AO or CFSP NMOC
NM applications and services changed	<ul style="list-style-type: none"> NMP
Impact category on external users	<ul style="list-style-type: none"> Impact on Human-Machine Interface

Impact description	Centralised web application for all flight-related functions
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	No Operational Testing (minor release)
Related documentation	User guide and new video tutorials for the most common use cases

5.13.2 CEs Having an Indirect Impact on Operations of External NM Users, via NMOC

5.13.2.1 FB1180 – Full NMP Airspace Completion – Migration

Objective	To partially complete the migration of NMOC's CHMI Airspace interface under NMP Airspace
Description	<p>This FB brings in partial completion of the porting of the current CHMI-based NMOC Airspace Domain (NMOC/AD) interface under the NES platform, to a browser based application. This FB finalises the following elements allowing NMOC/AD operators the Read/Write (Create, Replace, Update, Delete – CRUD) interactions with the interface:</p> <ul style="list-style-type: none"> • Airblocks • Routes • General usability features • Free Route Airspace (FRA) Restrictions and Point Type Usage improvements (impact from FB1141) <p>Once this migration is completed, NMOC/ADS and ENVCOOR will migrate in the same time to use this interface in operations.</p>

5.13.3 Studies

<None>

5.14 Operations Improvements

<None>

5.15 Performance Strategic Project

<None>

5.16 Technical CEs

<None>

6 Documentation

Operational Manuals/Guides	
ATFCM Users Manual	Operational description of the NM ATFCM related actions, information and message exchange
ATFCM Operations Manual	Intended to provide Flow Management Positions (FMPs) and EUROCONTROL's Network Manager (NM) with common understanding of their roles in delivering the most effective Air Traffic Flow and Capacity Management (ATFCM) services to Air Traffic Control (ATC) and Aircraft Operators (AOs)
CHMI ATFCM Reference Guide	This reference guide is intended for the users of the ATFCM Collaboration Human Machine Interface (CHMI) application
API Implementation Guide	Provides an overview and description of the available API services
DPI Implementation Guide	Provides an overview and description of the available DPI services
IFPS Users Manual	The manual is intended to contain all the necessary procedures and information in order for users to be able to construct, transmit or when necessary to correct, flight plan and associated update messages. Procedures for the distribution of such messages after processing by the IFPS are also described.
Flight Plan Guide and IFPS Errors Guide	The Flight Plan Guide allows users to search for the correct format to be used for the different fields of the ICAO Flight Plan via an on-line database. The IFPS Errors Guide is an electronic version of the error definitions published in the NM IFPS User's Manual.
Flight Progress Messages Document	Contains a description of messages from and to systems external to the NM which have been identified as Flight Progress Messages. It contains both messages from/to the Integrated initial Flight Plan Processing System (IFPS) to/from the Enhanced Tactical Flow Management System (ETFMS) and the Centralised SSR Code Assignment and Management System (CCAMS).
FUA – AMC/CADF Operations Manual	Provides guidance to the Airspace Management Cell (AMC) and the EUROCONTROL/NM Centralised Airspace Data Function (CADF) personnel to help them perform their daily tasks and to prepare and release the consolidated European Airspace Use Plan (EAUP) and European Updated Airspace Use Plan(s) (EUUP(s)) daily.
CHMI ASM Function Reference Guide	User guide for the ASM users of the CHMI
NOP Portal User Manual	Reference source for using the NOP Portal
CCAMS Users Manual	Frames the support of the CCAMS operations and explains all procedures applicable for CCAMS operations
NMIR Users Guide	This document contains information for new users, the list of NMIR dashboards, their contents in term of available reports and the mapping between the migrated previous NMIR reports and the NMIR dashboards (Annex 1). The process to access the NMIR is also detailed.

NM B2B Documents[NM B2B Technical Resources](#)

Folder of various technical documents related to the NM B2B, most importantly the NM B2B Reference Manuals and Release Notes, for the currently supported NM B2B versions.

[NM B2B Write Access Criteria](#)

Contains the criteria specified for each NM B2B WRITE Service to be fulfilled and followed during the operational validation, prior to enabling and agreeing that a B2B client to use that NM B2B WRITE service in NM operations.

Other Documents[Network Operations Library](#)

A collection of EUROCONTROL/NM documents related to Network operations and operations planning

7 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 Route
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
GUF1	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-CONNECT
n-CONNECT	network-COMmon Enhanced Collaborative ATM
NES	n-CONNECT Eco System
NIA	Network Impact Assessment
NID	Network Impact Display
NM	Nautical Mile
NM	Network Manager
NMD	Network Manager 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 Route
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 Manoeuvring 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



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