Supporting European Aviation

EUROCONTROL

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A practical guide for Networkers for Summer 2021

FOUNDING MEMBER
SESAR
JOINT UNDERTAKING

NETWORK MANAGER

The context - 1

*One of the functions of **EUROCONTROL Network Manager (NM)** is the Air Traffic Flow & Capacity Management (ATFCM), namely ensuring safe operations, avoiding excess of traffic demand and coordinating with stakeholders the best possible ATFM delay mitigation measures at strategic, pre-tactical/tactical level.*

*Due to the unprecedented situation caused by C-19 there is **no strategic delay mitigation plan in place,** Summer may well see periods of high traffic demand for some en-route sectors or airports and this, coupled with unplanned events such as weather, technical incidents or ATCOs unavailability, might lead to high ATFM delays or mini-disruptions locally, or in some cases at Network level.*

*In 2021 ATFM delay mitigation will be dealt with at Pre-tactical level (Day-6 to Day-1) and on day of operations by the **Network Manager Operations Centre (NMOC).** The ongoing NM seasonal rolling NOP using a 6-weekly look-ahead continues.*

The context - 2

*The cost of 1 min of ATFM delay for Airlines is **100 Euro***. It is paramount to support Airlines' daily rotations more than ever, allowing flights to depart with little or no delay. For the second year, NM has launched the **ATFM delay close to zero** campaign. We are aware that it is an impossible wish, but with an additional effort by all actors (Airspace Users, ANSPs, Airports and NM), we can get quite close to the target.*

*The NMOC cannot achieve such an ambitious goal **without collaboration from all actors** involved. We have a number of **operational requests and behavioural recommendations** for each group of actors. By complying with the requests and recommendations, traffic prediction will be significantly enhanced, traffic loads will gain stability and the positive 'side effect' will be a consistent **ATFM delay reduction**, whilst safety still guaranteed.*

Please read on to see how you can help your operation, delay mitigation and your Network.

* Source: EUROCONTROL standard inputs economic analysis ed.9
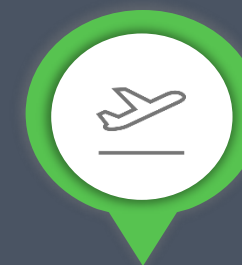
What we ask Dispatchers

- **File reliable FPLs** with particular attention to:
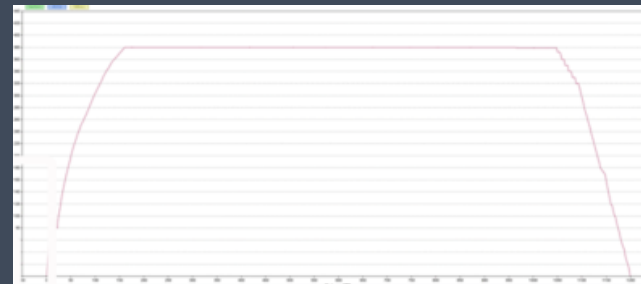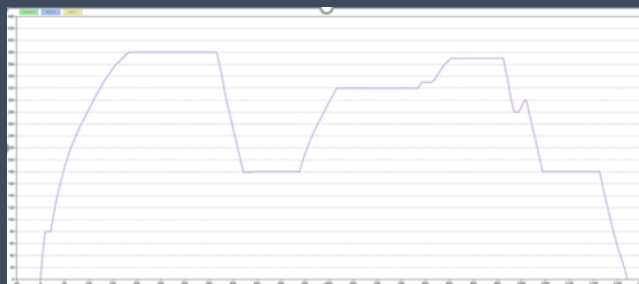
  ✅ **Cruise flight levels (RFL)**   ✅ **Taxi-times**

- **Avoid YO-YO vertical profiles in FPLs, trying to avoid an ATFM regulation, it is likely that you will not avoid delay, but you will rather cause a traffic overload in lower radar sector or a new ATFM measure (which you will be subject to).**

⚠️ **From 5th May 2021: All YoYo FPLs 4000/5000ft over 300NM => REJ by NM system**

What we ask Dispatchers

Do

- **Avoid sharp angles routes** if unable to find direct route… but … rather ask NMOC Flight Planning staff to help you finding the best possible RAD compliant alternative route. **IFPS H24 phone +32 (0) 2 745 1950**

> ⚠️ **From 17th June 2021 FPLs with turn >120deg above FL200 => REJ by NM system**

- **Use IFPU FPL Validation (IFPUV) in NOP Portal to test your FPL before sending it to IFPS.**

FPL

Validate against IFPUV

EOBT

✓ **Benefits: Network predictability and reduction on IFPS violations**

- **Keep EOBT updated, do not be afraid of a new slot. If that happens use e-HelpDesk.**

What we ask Dispatchers

Do

- **Use the E-HelpDesk instead** of telephone coordination to ask for delay improvement.

- **Follow E-HelpDesk operational procedures** for any flight request.

- **Keep EOBTs updated at all times!**

**** We remind you that the Flight Activation Monitoring (FAM) parameter is now reduced to 17 min****

Do not let your flight get suspended by the NM system!

FAM ~~20 min~~ **=> 17 min**

Don't

- **Do not submit to E-HelpDesk multiple requests** for the **same flight**, as only **one** will be considered *(unless you receive a different CTOT from your first request you entered in **E-HelpDesk**)*, all the others **will be rejected automatically** by the system.

- **Do not send request to E-HelpDesk more than 2 hours before EOBT** of the concerned flight, as the request will not be considered by the e-HelpDesk software.

EOBT

EOBT-2
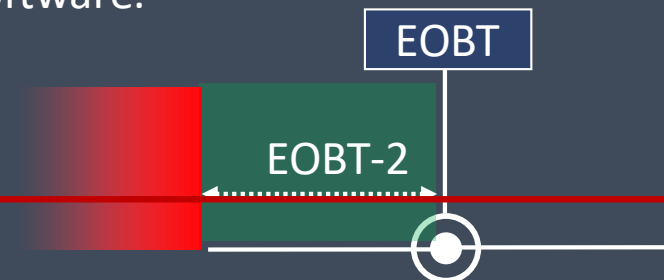
What we ask Dispatchers
AOLO Hotline

Do

Restrict your calls to AOLO hotline <u>only</u> for flights needing special assistance.

AOLO general queries phone number: **+32 (0)2 745 1992**
Aircraft Operator Hot line phone number: **+32 (0)496 560 300**

Examples of qualifying reasons for calling the AOLO hotline:

- **Flights delayed and at risk of FPL cancellation** *due to crew duty times;*
- **AO needing assistance to urgently contact airborne flights** *or needing to know the position of aircraft they are not able to contact;*
- **Special medical flights***;*
- **Flights at/close to holding point** *receiving SRMs due to DPI messages (if these cases are not already dealt by TWR/FMP in coordination with NMOC;*
- **Exceptional Aerodrome or ACC conditions** *causing delays that push flights into critical night curfews;*
- **Priority of re-positioning** *of diverted flights;*
- **Flights severely delayed by ATFM measures caused by meteorological** *phenomena*

AOWIR (Aircraft Operator What-if Reroute) YouTube Tutorial Links

NOP Tutorial : I want to reroute my flight. Part 1: https://www.youtube.com/watch?v=27cfrMN5nIA
NOP Tutorial : I want to reroute my flight. Part 2 : https://www.youtube.com/watch?v=TCZErM6b2RQ

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What we ask Dispatchers
Critical Flights

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Do

Although ATFM delays are not expected high as in Summer 2019, the Network situation may still trigger significant ATFM delays. In case you receive a bad CTOT, you have the chance to **declare your flight** as **critical** in the **E-HelpDesk** application (B2B and B2C).

It is left to the discretion of the Airspace User as to which flights should be marked as *critical.*

By flagging a flight as critical, the following actions will be applicable:
- The **call-sign of the flight will be highlighted** in the E-HelpDesk queue with **magenta** colour
- The **critical flight will be exempted** from E-HelpDesk manual user rules
- The **critical flight will still be subject** to all E-HelpDesk system rules (e.g. SIT1 rule).

- **Each Airspace User is allowed to mark as critical up to 5%** of its **regulated flights as long as…**
- The **overall number of critical flights per Airspace User** is limited to **max 20 flights**
- The **critical flag function can only be attached** to a request for **Slot improvement**.
- **Once the flight is marked as critical,** it cannot be modified in the same day.

NMOC staff will exploit all means to **reduce the ATFM delay** of the **critical** flight, in coordination with relevant ANSP/Airport responsible for the ATFM measure, but **we cannot grant that each request will be satisfied**.

What we ask Pilots

Do

- **Ask TWR for start up in line with EOBT, Taxi-time and CTOT** (should you receive it).

- **Fly what you File!**
- **Maintain FPL route/vertical profile** unless a **deviation** is dictated by **WX phenomena, by ATC or by technical reason.**

- **Respect the ETA at destination airport** and sector entry times (Target Times in SAM, SRM messages)

Don't

- **Do not ask for direct routes to ATC,** as entry times in sectors and arrival times at airport are jeopardized: time volatility causes loss of predictability!

- **Do not call NMOC e-HelpDesk from cockpit**, ask **your OCC** to do it (unless you are at same time dispatcher, handling, pilot…), as your **OCC** is the official coordinator for your Company.

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What we ask Pilots (GA/BA)

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Do

- **File FPL as early as possible** possibly not later than 4 hours before EOBT

- **Fly what you File!** Maintain FPL profile unless a deviation is dictated by WX phenomena, by ATC or by technical reason.

- **Keep EOBTs updated**, do not be afraid of a new slot

- **Respect airport slot**, particularly at airports with high summer holiday demand and low arrival rates

- **Respect the ATFM slot (CTOT)** if your flight is subject to an ATFM regulation.

- **Respect the ETA** at destination airport

- **If high delays** → use e-HelpDesk

Don't

- **Do not call NMOC e-Helpdesk from cockpit**, ask your OCC to do it (unless you are at same time dispatcher, handling, pilot…).

- **Do not let your flight be suspended** by FAM! Keep EOBT updated.

- **Do not ask for direct routes!** as entry times in sectors and arrival times at airport are jeopardized: time volatility causes loss of predictability!
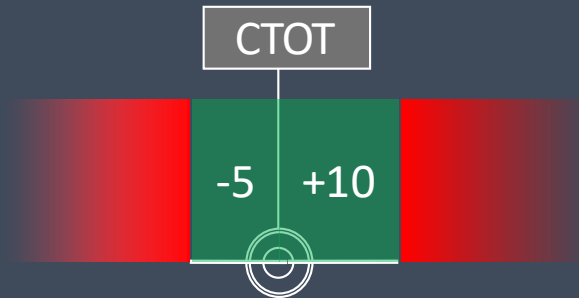
What we ask ATCOs (TWR)

Do

- **<u>Always</u> respect the CTOT slot tolerance window**

CTOT

-5   +10

- **If the flight is ready to go before the departure slot issued, make an effort and send REA to NM, as requested by the pilot.**

REA → NMOC

Don't

- **A-CDM TWRs not to request STW/DTW** just for ease, let us work on specific flights rather than to all departures. Please remember that application of STW/DTW deteriorates predictability in downstream en-route sectors.

- **If a CTOT is expiring, do not wait last minute:** contact your FMP or contact directly NMOC to obtain a CTOT extension as per your local procedure.

- **Never let flight depart outside the CTOT slot tolerance window!** Contact your FMP or directly NMOC to obtain a CTOT extension as per your local procedure.

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What we ask ATCOs (ACC)

Do

- **Check the final requested flight level in FPL**

- **Ask pilots** to *Confirm able for filed Flight Level*

- **Refuse a level change (different from RFL)** requested by pilot **if not justified** by **WX phenomena, ATC or other technical reason.**

Don't

- **Do not give shortcuts* (see NOTE)** , unless dictated by ATC reasons. They will cause time volatility and loss of predictability in a radar sector downstream or at destination airport.

- **Do not propose flight level changes**, unless dictated by ATC reasons or if you know the impact downstream.

  In general do not deviate the flight from the vertical/geographical profile as filed in FPL, unless dictated by WX, ATC or other technical reason.

  * NOTE: not applicable to flights in FRA (Free Route Airspace)

What we ask FMPs

Do

- **The NMOC staff has the Network overall view, so please consider suggestions from NMOC staff** to resolve a demand capacity balancing (DCB) issue

- **Provide NMOC reliable sector configurations & capacities** at all times **(D-1 and tactical day)**

- **Use B2B connection and NOP Portal** (rather than phone) to **coordinate ATFM measures with NMOC** during the pretactical/tactical day.

  new

- **To sign up see slide 17**

- **Apply recurrent ATFM measures at D-1, do not wait for the tactical day,** particularly if overload is spotted in the early morning hours (first rotation).

Don't

- **Do not just propose NMOC your solution (ATFM measure) to resolve an overload or a demand peak,** but rather **tell NMOC what is the problem,** as your solution may negatively impact other sectors in other ACCs.

- **ATFM measures shall be agreed with NMOC following CDM** principle (NF IR 677/2011 and NF IR 123/2019)

- **Do not ask for an ATFM measure if your sector configuration has not been updated correctly in ETFMS,** i.e. the actual sector configuration must be active.

What we ask FMPs

Do

- **Use STAM/ACP/MCP** to resolve isolated demand peaks

- **Tactical Scenarios should be applied respecting the EOBT/TOBT of flights.** Absolute minimum parameter: **OBT of the first captured flight +120min.**

- **When deciding about the duration of an ATFM measure, NMOC flow staff opinion shall be taken into consideration**: frequent ATFM measure changes, decided by the FMP without considering NMOC FM expertise, is one of the main reason for traffic volatility, causing further unpredictability and thousands of unnecessary ATFM delays.

Don't

- **Avoid standard ATFM measure**, you are going to penalize many more flights than necessary! Most of the overload peaks in sectors or airports can be solved out with a STAM (Short Term ATFM Measure).

- **Do not contact NMOC (phone, e-HelpDesk) to ask for slot improvement on behalf of AOs**, unless the need for slot change is dictated **by TWR sequencing** or flights taxiing with slots expiring. In any other case tell AOs to use NMOC e-HelpDesk.

- **Do not wait last minute to ask for an ATFM measure due to weather**, you may not capture all the concerned flights, risking an over-delivery.

What we ask FMPs

Don't

- **Do not wait until the last minute** to contact/propose NMOC **(via B2B or NOP portal) for a new ATFM measure** or any other necessary modification. When the situation requires major changes of the plan (i.e. due staffing issues, major traffic shifts, unplanned events etc), **tell us in advance**. We can apply the options in **SIMEX** (simulation tool) and transfer the proposed final solutions to ETFMS in one go.

Major change in plan ···· Inform NMOC in advance ····> NMOC ····> SIMEX ····> Best final solutions ····> TACT

- **If you monitor loads by using Occupancy Counts: do not ask for standard ATFM measure to resolve a peak in occupancy counts expected to occur clock time + 3 hours**, this is a <u>wrong</u> option. **Use different ATFCM techniques instead (e.g. MCP or STAM)**.

- **Do not use ETFMS to test** ATFM regulations or just guessing what could be the outcome. **Use the TACT SIMEX instead!**

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Do

If your ANSP/FMP is <u>NOT</u> connected B2B with the NMOC, as from April 2021 you can coordinate/ask/modify ATFM measures via the **NOP Portal**, so expediting the coordination and avoiding the phone call to NMOC Flow staff.

We strongly suggest to subscribe to the **new** service by writing to:

e-helpdesk@eurocontrol.int

Our staff will guide you to the whole process (preparation and full OPS phase).

To look at the new feature :

You Tube training video
https://www.youtube.com/watch?v=2bUkFTuLnD8

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Do

- **Detect non-standard (non RAD compliant)** advisory re-routing in **pre-tactical phase** and coordinate with NMOC. **We can suspend the RAD restriction** to optimize the available capacity during the tactical day.

- **If you spot a RAD measure forcing flights into bad WX**, report them to NMOC in due time **for its possible suspension** (possibly in the pre-tactical phase).

- **Use the e-HelpDesk connection with NMOC** to ask for slot extensions, slot improvements or an EXCLUSION from the ATFCM measure. **This will reduce the response time versus telephone** as your queries will be differentiated from AOs requests.

- **FMP will be always in the loop for assessing ATFM measures** in case of bottlenecks spotted at airports/enroute during any ATFCM phase. Such coordination may be in form of usual Strategic/Pretact/Tact coordination and may be supported by ad-hoc conferences, called by NM or stakeholders.

What we ask Airports

Do

- **A-CDM airports:** Operate within agreed data updates and procedures and keep the A-CDM tool up to date at all times.

A-CDM TOOL

- **Keep your plans updated in Airport Corner** ref changes to planned/unplanned events at D-1 and day of operations. The Airport Corner proves that it is useful to have the info from airports especially when capacity is impacted.

- **Inform the NM Airport Unit (prior the day of operations)** or **NMOC Airport Position (day of operations)** of **any possible expected event/issue** that might have an impact on airport capacity and trigger ATFM delay.

Inform NMOC or Airport Unit

NM

Any event/issue impact on airport capacity and ATFM delay

The NM contribution
The Flight Efficiency Task Force

The NM created the FE Task Force to support AUs in planning efficient/optimal routes, so achieving savings in **miles** => **fuel** and improving network **predictability** => **gains for Flight Efficiency**.

Identification of re-routing alternatives based on the current filed FPL and airspace opportunities, leading to:
- modification of the filed flight plan (**tactical improvement**) with more efficient route
- update company routes (**post-ops improvement**)
- **CFSP** database **changes**
- **proposals for** RAD relaxation, increase of DCT options

Reminder: *NM Flight Planning Requirements – Guidelines* document
⇒ basic NM flight planning requirements to be known by AU / CFSPs is available at:
⇒ https://www.eurocontrol.int/publication/nm-flight-planning-requirements-guidelines

contact: nm.fetaskforce@eurocontrol.int

The NMOC Airport Position

The purpose of the Airport Position is to:

- **gather situational awareness at airport level**
  - at D-1 (coordination with 'hotspot' airports/AO's to minimise the need for ATFM measures)
  - and throughout the day of operations;

- **focus NMOC staff attention to airport issues as:**
  - curfew
  - slot coordination/flight suspensions (FLS)
  - ATFM measures and delay mitigation
  - WX and unplanned events
  - Focal point for the **S21 SMART WX Trial** with **EDDF, EGLL, LECB, LOWW, LSZH airports.**

- **providing Airports (APOC/Airport Ops Managers…) with single point of contact.**

The 'Airport Position' will be active in NMOC from 1st July – 30th Oct (0300-1900UTC)

Contact us in reference to any airport issues, especially if you have a late request for an airport with high arrival delays as we can help advise on the situation.
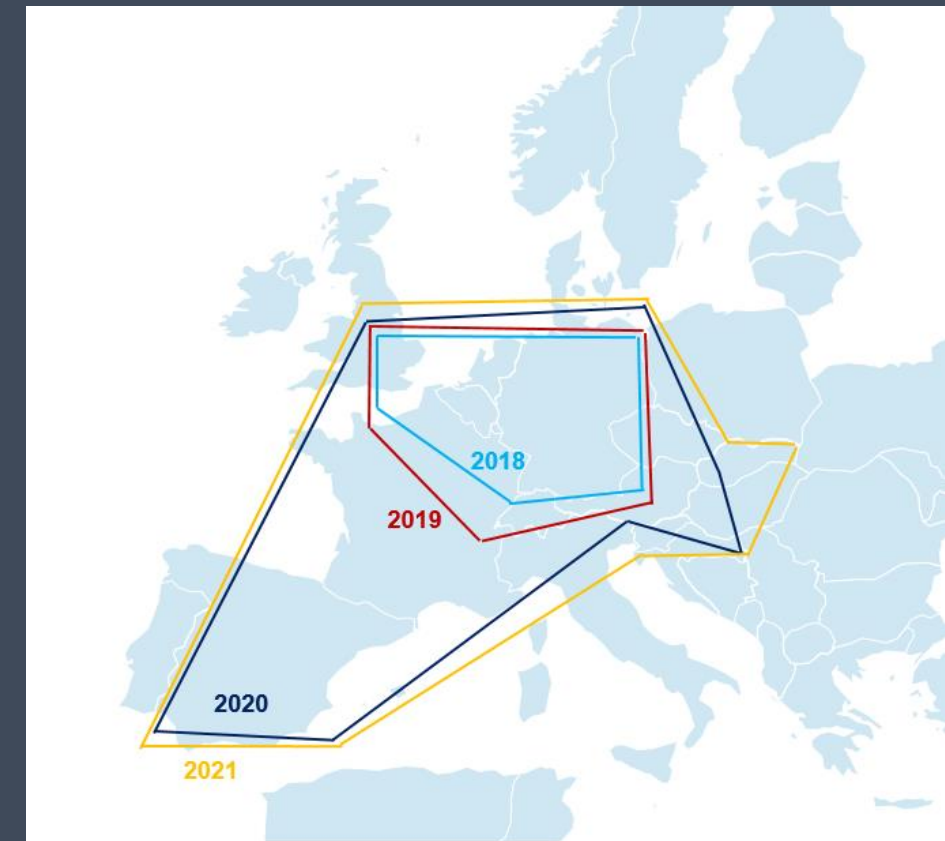
NM Airport Position email: NM.Airports@eurocontrol.int
Phone +32-2-7291190 only during opening times 0300-1900 UTC

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ATFM delay close to "zero"

The NMOC has 25 years experience in managing the Network (flight planning, airspace data, flow management, delay mitigation, disruption and crisis). Our experienced staff is able to take the best possible decision vs the needs of ANSPs, Airports, Airspace Users in a collaborative and coordinated manner, under normal, disruptive and critical circumstances.

2021 Summer traffic in the Network may achieve **75%** vs 2019 figures.
In order to support Airspace Users smooth aircraft rotations and flight punctuality, the NM launched for the second year the ATFM delay close to zero campaign.

The NMOC performance in ATFM delay reduction is excellent (**3** to **3.5M** min delay saved each year since 2012) using the mitigation 'toolset' in collaboration with ANSPs, Airports and AUs:

- **Use of off-load measures:** re-routeing or level-capping scenarios
- **Use of RRP** (Re-routeing proposal) sent to Operator
- **Slot list management** by Flow Management staff
- **E-HelpDesk:** ability to treat each request within 90 seconds
- **Airport function**
- **Weather management**

The **delay mitigation toolset** will be only effective if all actors *play the game* according to CDM principles.

EUROCONTROL Network Operations and NMOC wish you a busy Summer!