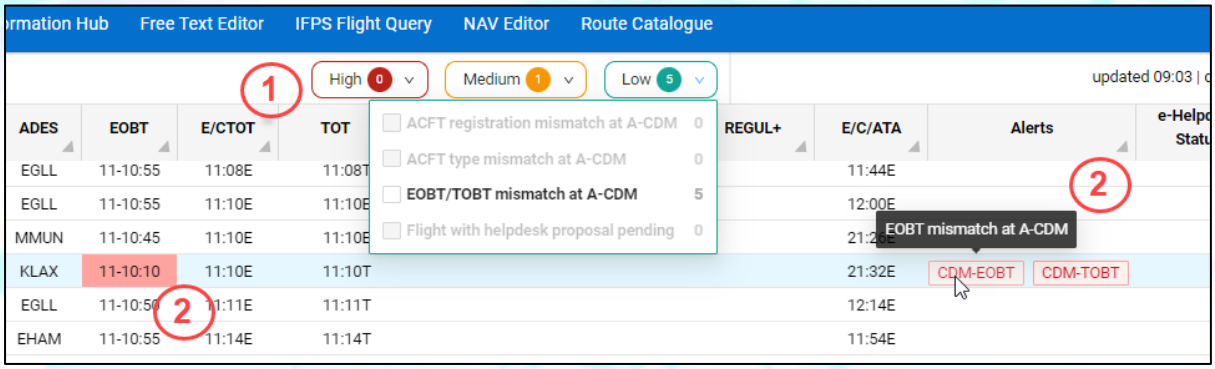
Customised Flight List Alerts

The NMP Flight concept is to "Manage by exception" which is a concept that focuses on giving attention to deviations and unusual occurrences rather than constantly monitoring routine operations. Your attention can be drawn to the status of a flight in a variety of ways, by means of the Customise Alerts component.

Such alerts are shown in two different ways, to draw your attention to the concerned flight(s):

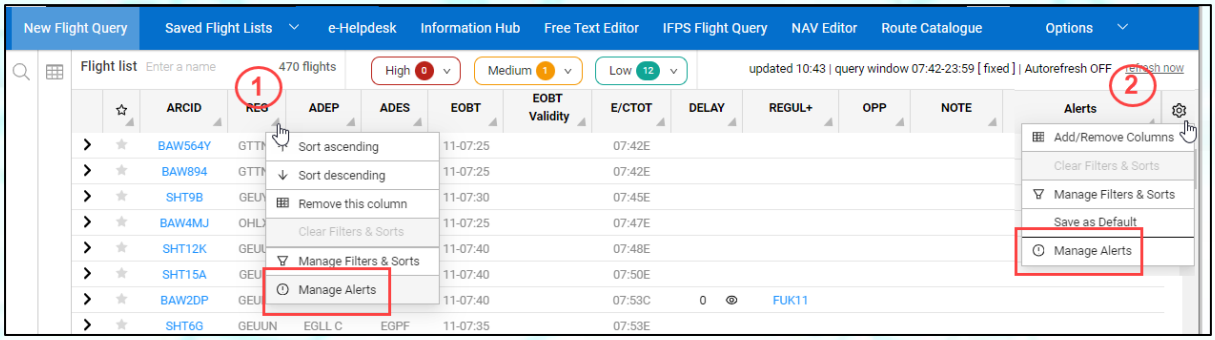
1. Focus Alerts
2. User Alerts



Alert Configuration

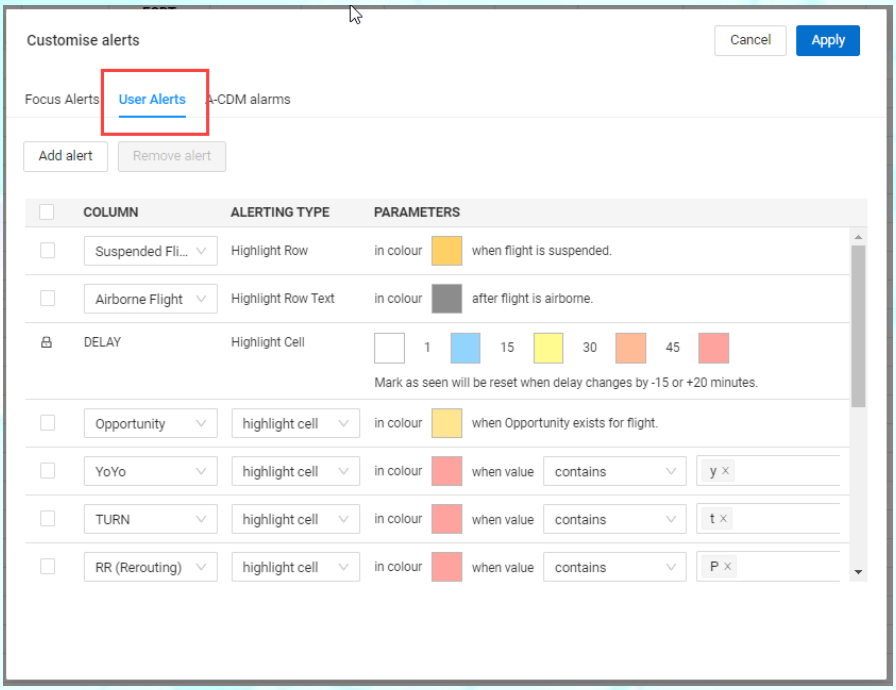
The Customise Alerts component can be opened in two ways, by selecting the Manage Alerts option:

1. From a column header
2. From the settings menu



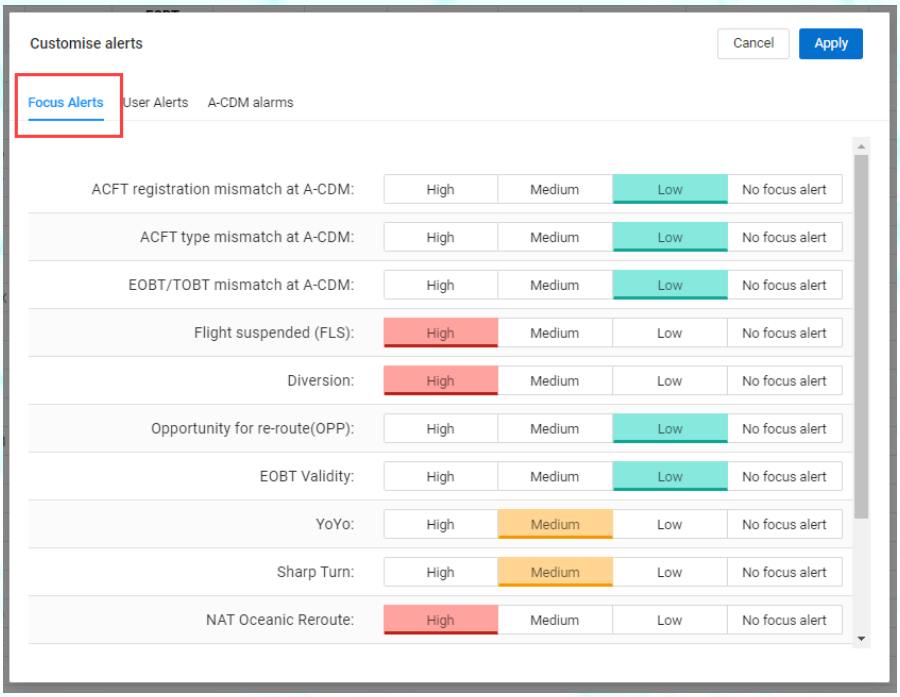
User Alerts

The User Alerts tab allows you to configure which alerts are to be displayed in the Flight List:



Focus Alerts

The Focus Alerts tab allows you to configure which alerts are to be displayed in the Flight List Filter buttons:

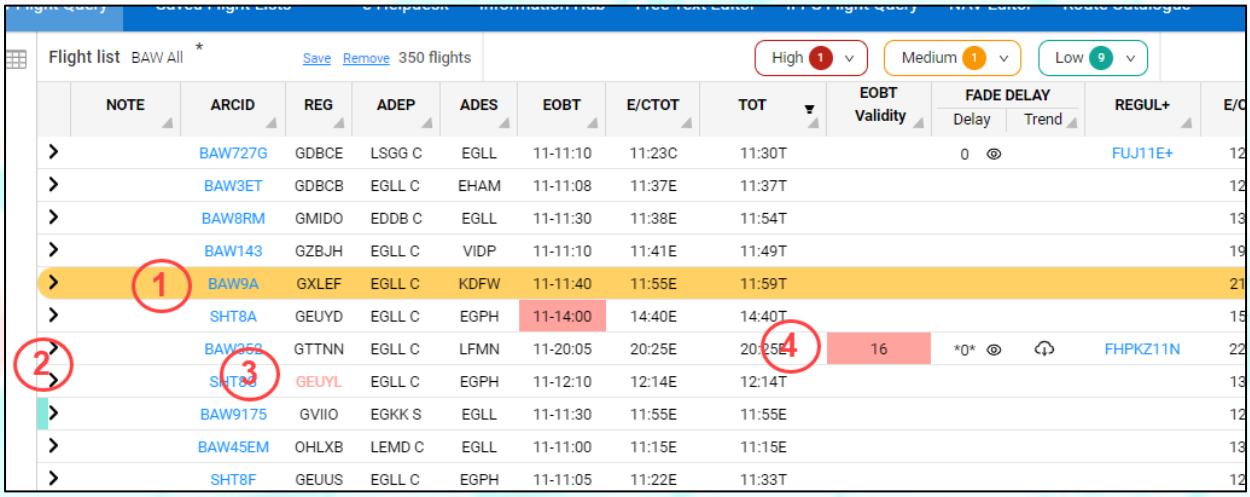


Alert Display in the Flight List

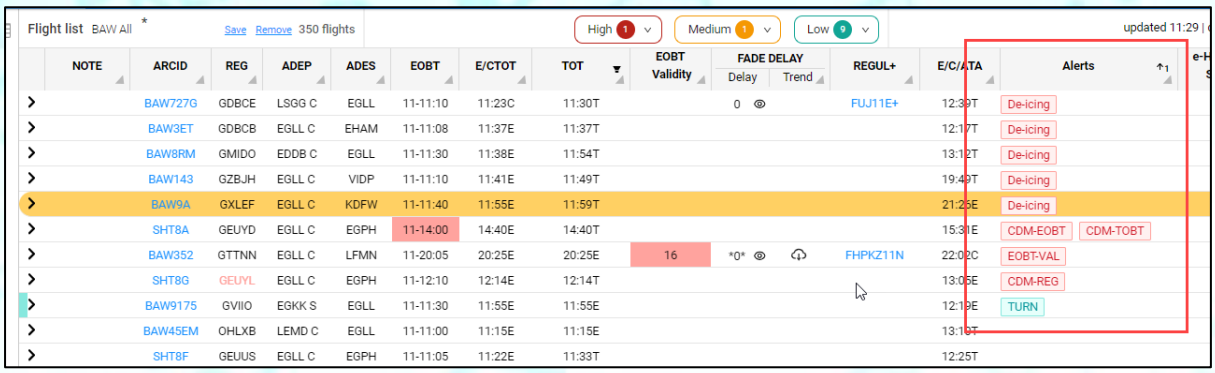
User Alerts

The User Alerts are displayed in the flight list with the selected 'ALERTING TYPE' (defined in User Alerts configuration):

1. Highlight Row
2. Mark Row
3. Highlight Text
4. Highlight Cell



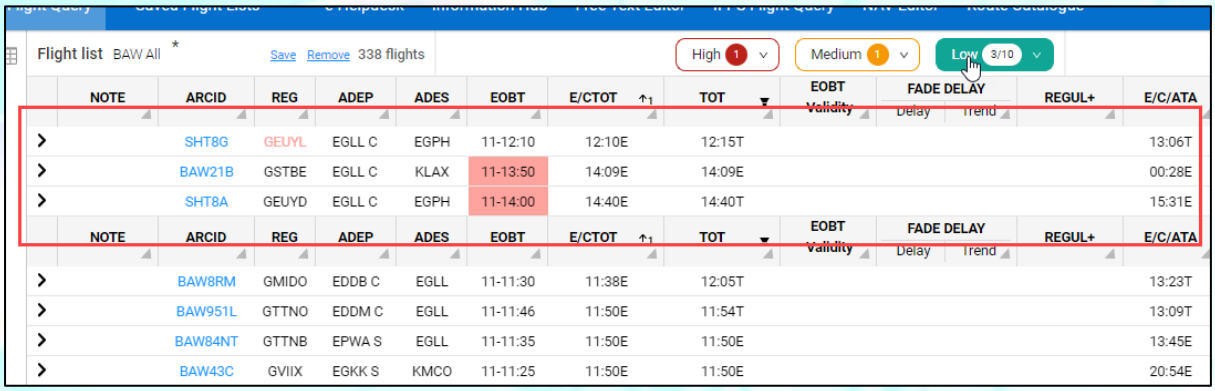
There is an optional 'Alerts' column that contains a tag for most User Alerts that have been configured and is applicable to the flight, even when the associated column is not shown:



Focus Alerts

The three Focus Alert buttons at the top of the flight list indicate the number of flights belonging to the categories configured.

When clicking on one or more of the Focus Alert buttons, the associated flights are copied into a new table at the top of the flight list. Clicking again removes the view of those flights.



*Please check our **User Alerts** video tutorial here :* YouTube

*Please check our **Focus Alerts** video tutorial here :* YouTube

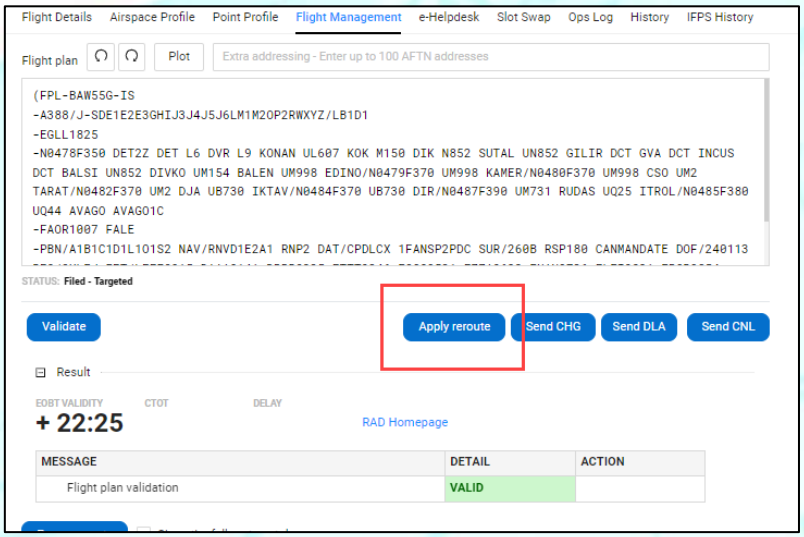
Apply Reroute

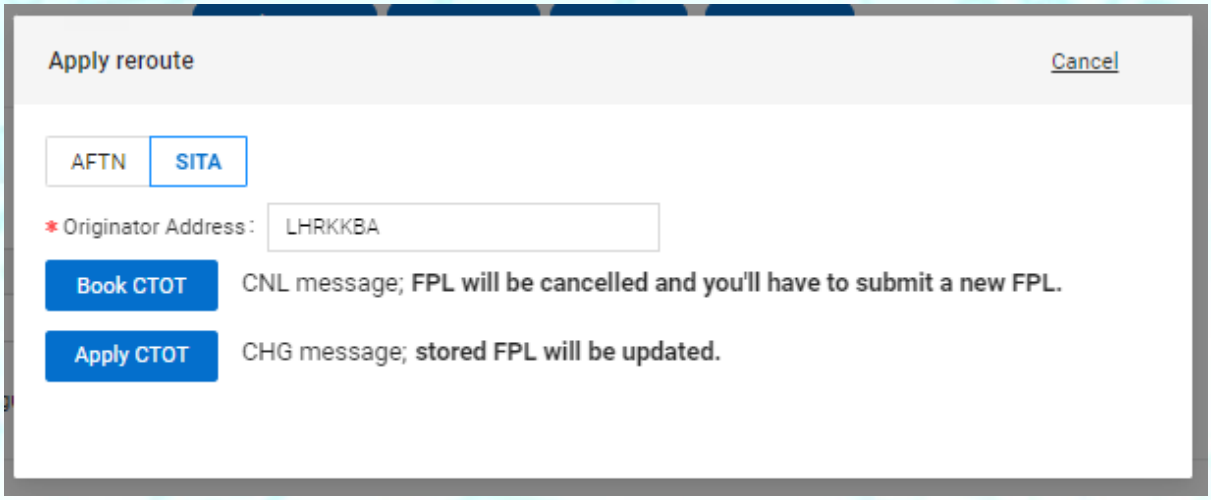
The ‘Apply Reroute’ function allows an Airspace User to request a modification of a filed flight plan (FPL) routeing.

Once the required new route is in the Flight Management editor and validated, two refiling options are available:

- **Book CTOT**
- **Apply CTOT**

The ‘Apply reroute’ dialogue contains an Originator address field. This has a default input of the stored AFTN/SITA address of that User.





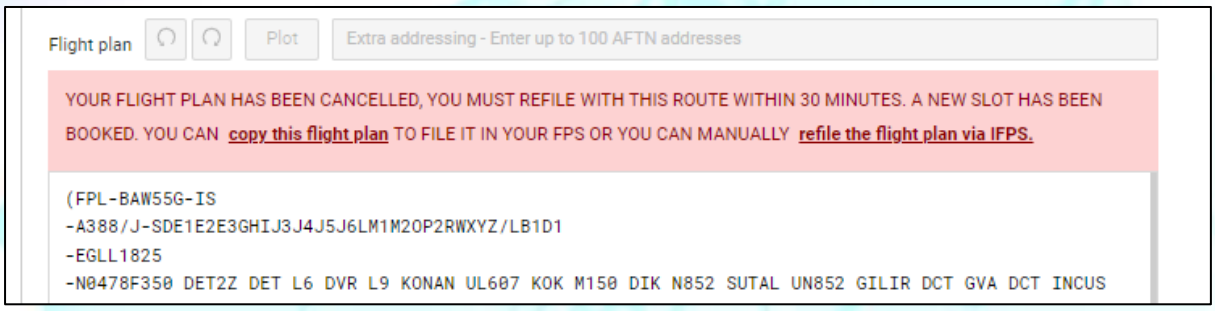
Book CTOT

A CNL message (flight plan cancellation) is automatically submitted by NM through the IFPS.

It is the responsibility of the User to refile a new FPL containing the new route.

If the new route will be regulated, the CTOT (ATFM slot) will be 'booked'. The Airspace User has 30 minutes to refile a new FPL containing the new route, otherwise the 'booked' CTOT will be lost.

Note: The refiled FPL does not cause the flight to become a late filer.



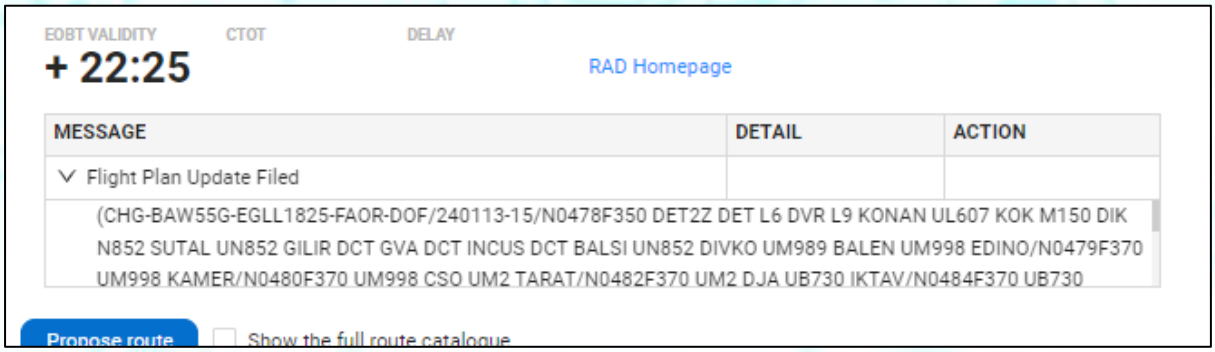
Apply CTOT

A CHG message (flight plan modification) containing the new route is automatically submitted by NM through the IFPS.

"RFP/Q1" and "AWR/R1" are included in Item 18 of the CHG message.

No further action is required from the User.

Note: The CHG does not cause the flight to become a late updater.



Please check our Apply Reroute video tutorial here : YouTube

NMOC e-Helpdesk

The NMOC e-Helpdesk service is a means to contact NMOC to request assistance with a specific flight.

- **The e-Helpdesk will be treated with priority over FM Helpdesk phone calls.** The telephone service is reserved for those who do not have e-Helpdesk access.
- Only one request per flight should be submitted. Do not send repeated requests for the same flight concerning the same problem because this will result in the request being automatically rejected.

The reasons for using the NMOC e-Helpdesk are predefined as:

- **CTOT improvement** – You may ask NMOC to attempt to find a CTOT improvement. NMOC staff will try to decrease the ATFM delay of the flight, depending on the network constraints.
- **CTOT extension** – You may ask NMOC to extend the ATFM slot of an individual flight. NMOC will review the request, and may grant 10 minutes extension, if network constraints permit.
- **Rerouting request** – You may ask NMOC for rerouting assistance. This option shall only be used after you have already used the available rerouting tools in NMP Flight without success.
- **Other requests:**
    - De-activate a flight.
    - Contact flight crew with message.
    - 'Other' type of request for assistance.
- **Request for Information** – These will provide answers without submitting them to the NM, for example: '**Information** > **Update on critical situation**': "*Check the Headline News in the Information Hub or recent AIMs*".

Flight Criticality

Airspace Users have the possibility to flag a flight as being critical when submitting an e-Helpdesk request. The criticality reason must be given in the request.

Each Airspace User can submit a critical request for 5% of its regulated flights, with a minimum of 1 flight and a maximum of 20 flights.

Critical requests are highlighted in the NMOC e-Helpdesk queue. Critical e-Helpdesk requests are not subject to e-Helpdesk automatic processing rules.

Independent of the outcome of the e-Helpdesk request, the flight remains marked as critical in the NMP Flight list for the lifecycle of the flight on that day.

The e-Helpdesk Process

Automatic processing

The automatic processing of e-Helpdesk requests enables the NMOC to focus on other tasks with a high added value for the Network. The automatic processing of e-Helpdesk requests is achieved by the use of rules to reject certain requests, including:

- Duplicate requests.
- Requests for slot extension, slot improvement and slot swap before the slot has been issued (before SIT1).
- Slot extension or slot improvement at CDM Airports.
- Flight not regulated.
- Requests for slot improvement when flight delay is lower than the average in the most penalising regulation.

Manual processing

NMOC review the request and either accept or reject.

- If accepted, the proposal changes the status to 'RESPONDED' and the changes are reflected in the system (e.g. the flight will receive the SRM/SLC message).
- If rejected, the proposal changes the status to 'UNABLE' and the proposal is not implemented.

ARCID	REG	ATYP	ADEP	ADES	EOBT	EOBT Validity	E/CTOT	DELAY	e-Helpdesk Status	REGUL+	O
KUG008	9KGEA	A319	EGSS C	OKKK	26-08:20		08:55C	20	RESPONDED	LHENHT26+	
RYR4967	EIENG	B738	EGSS C	EIKY	26-11:15		11:29E		SUBMITTED		
RYR45MP	SPRZE	B38M	EGSS C	LBSF	26-08:56		09:45C	20	UNABLE	KERL126M	
RYR4CY	EIDWE	B738	EGSS C	EPSC	26-10:10		10:33C	9	UNABLE	EDWMA26M	
PGT1758	TCDCL	A320	EGSS C	LTBS	26-10:45		11:00C	0	UNDER_WORK	LQUP3526	C-21
RYR5RQ	EIENR	B738	EGSS C	LEIB	26-08:00		08:14E				

Airspace Users can provide the earliest take-off time that the flight can achieve and help the NMOC when finding the most suitable improvement. This can increase the likelihood of getting the requested improvement and reduce the time of response.

Please check our e-Helpdesk video tutorial here : YouTube

Forecast of ATFM Delay (FADE)

The length of the ground delay assigned to a regulated flight may change dynamically until departure. The FADE AI module has been developed to reduce this uncertainty and therefore improves airlines' operations management throughout the day.

It is made of two indicators:

- Predicted Delay: Expected final delay at departure.
- Decrease Probability: Probability that the current ATFM delay will decrease.

The main use cases for an AO to use FADE are:

- Support to decision-making for rerouting prioritisation: decide to re-route a flight several hours in advance to avoid high delays.
- Increase of situation awareness: inform the crew and ground handlers about the trend of the expected delay.

The tool is available in NMP Flight (request access for your AO) and via an API.

THE PROCESS

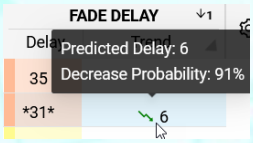
To display FADE, access should be granted first at the AO level in the **Shared configuration"** part. Contact nm.nmp.flight.feedback@eurocontrol.int to get access.

When a flight is regulated, its ATFM delay, and the FADE prediction are both displayed in the **FADE DELAY** column: *Delay* for the ATFM delay and *Trend* for the FADE prediction.

ARCID	REG	ADEP	ADES	EOBT	E/CTOT	REGUL+	FADE DELAY	
							Delay	Trend
AFR23WH	FHBXG	LFLL C	EHAM	22-08:35	09:19C	EHAMA22E	35	
AFR88QG	FHZUK	LFPG C	EGLL	22-12:15	12:59C	EGLLA22M	24	↘ 9
AFR76GJ	FHPNC	LFPG C	EGLL	22-15:10	15:30E	EGLLA22M	*21*	↘ 6
AFR95WF	FGUGM	LFPG C	LSGG	22-12:00	12:36C	LSGGA22M	16	↘ 7
AFR1383	FHZUH	LKPR C	LFPG	22-11:30	12:23C	EDMF422M+	14	↘ 11
AFR97HB	FHPNC	LFPG C	EGLL	22-10:10	10:43C	EGLLA22M	13	
AFR218	FGSQD	LFPG C	VABB	22-10:30	11:01C	KLK1C22M	11	↘ 10
AFR61FL	FHZUK	LFPG C	EGLL	22-17:00	17:20E	EGLLA22M	*11*	↘ 3
AFR71TP	FGKXT	LFPG C	EFHK	22-11:35	12:06C	EFHKA22	11	↘ 6
AFR77BW	FHZUY	LFPG C	EKCH	22-11:20	11:50C	EKCHA22E+	10	↘ 9
AFR61AP	FGUGR	LFMN C	LFPO	22-13:45	13:55E	LFPOA22A	*8*	↘ 4
AFR96GB	FGRHZ	LFPG C	EKCH	22-14:05	14:25E	EKCHA22E	*6*	↘ 3
AFR74KJ	FHBNB	LFBO A	LFPO	22-13:00	13:10E	LFPOA22A	*5*	↘ 3
AFR75GR	FHBNE	LFMN C	LFPO	22-12:45	13:01C	LFPOA22A	5	
AFR926	FHUVB	LFPG C	FOOL	22-11:35	11:59C	LECCC22M	4	
AFR99ME	FHBLA	LFPG C	EKBI	22-12:05	12:29C	YB5WH22A	4	

By default, the FADE prediction is not displayed. To load it, the user should click on the *cloud* .

When displayed, the FADE prediction 16 indicates:



- **Predicted Delay**: Expected final delay at departure
- **Trend**: Arrow showing the difference between ATFM delay and Predicted Delay. The arrow is green when decreasing and red when increasing.

When mouse over the trend, a tooltip appears, displaying both FADE indicators: **the Predicted Delay and the Decrease Probability**.

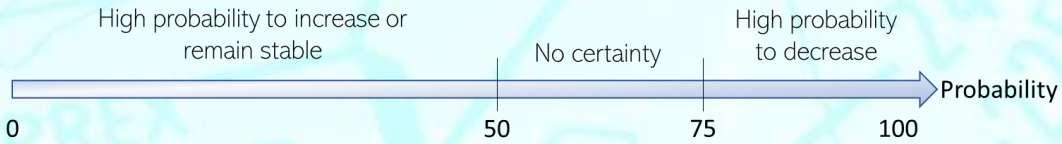
The FADE predictions are provided to flights with the status *FS* (Filed, Slot Allocated) and *SI* (Filed, Slot Issued) but is not provided for flights with the status *FI* (Filed, but not regulated), and *TA* (TACT-activated).

Overall, the performance of the FADE model is **80% accuracy**. However, in daily use FADE performance may vary. We recommend avoiding using FADE predictions in specific days like:

- Thunderstorms – if the flight is caught by a Weather regulation
- ATC-industrial actions – if the flight is caught by an ATC-industrial action

The method to use the indicators is not provided by EUROCONTROL. It is the responsibility of the AO or the dispatcher to make decisions based on the prediction indicators.

Nevertheless, performance assessment shows that for the Decrease Probability indicator, the probability to decrease is high when the value is above 75%:



These values are for *indication only*. They should not be taken as official thresholds. The AO should build its own trust and experience by using these indicators.

Please check our FADE video tutorial here : YouTube

Rerouting Opportunities

During the Tactical Phase of operations, NM systems monitor the filed flight plans looking for flights that may benefit from re-filing their flight plans onto more efficient routes to take advantage of opportunities to optimise their flight planned routes.

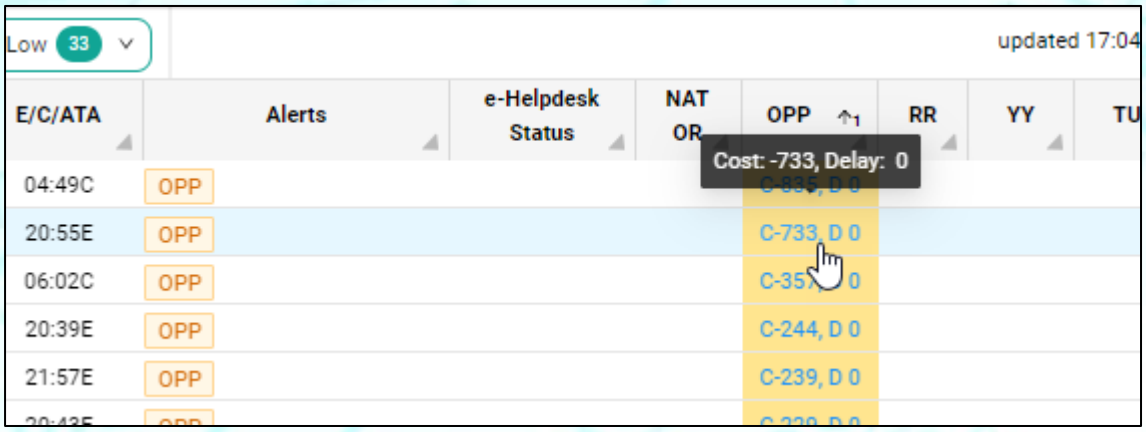
NM systems considers the currently filed route in comparison with route alternatives in terms of ATFM delay, flying time, route length, fuel burn and route charges information. When the NM systems find an alternative route that may be interesting to an Airspace User, a route proposals 'Opportunity' (OPP) is generated that is visible in NMP Flight.

> ⚠ CAUTION
>
> **The routes proposed are not NM recommended routes; it is the Aispace Users responsibility to determine the operational acceptability of the routes before use.**

Active OPP in the Flight List

There is a default **OPP** ("Rerouting Opportunity – C=Cost, D=Delay") column available in the Flight List to show OPP information.

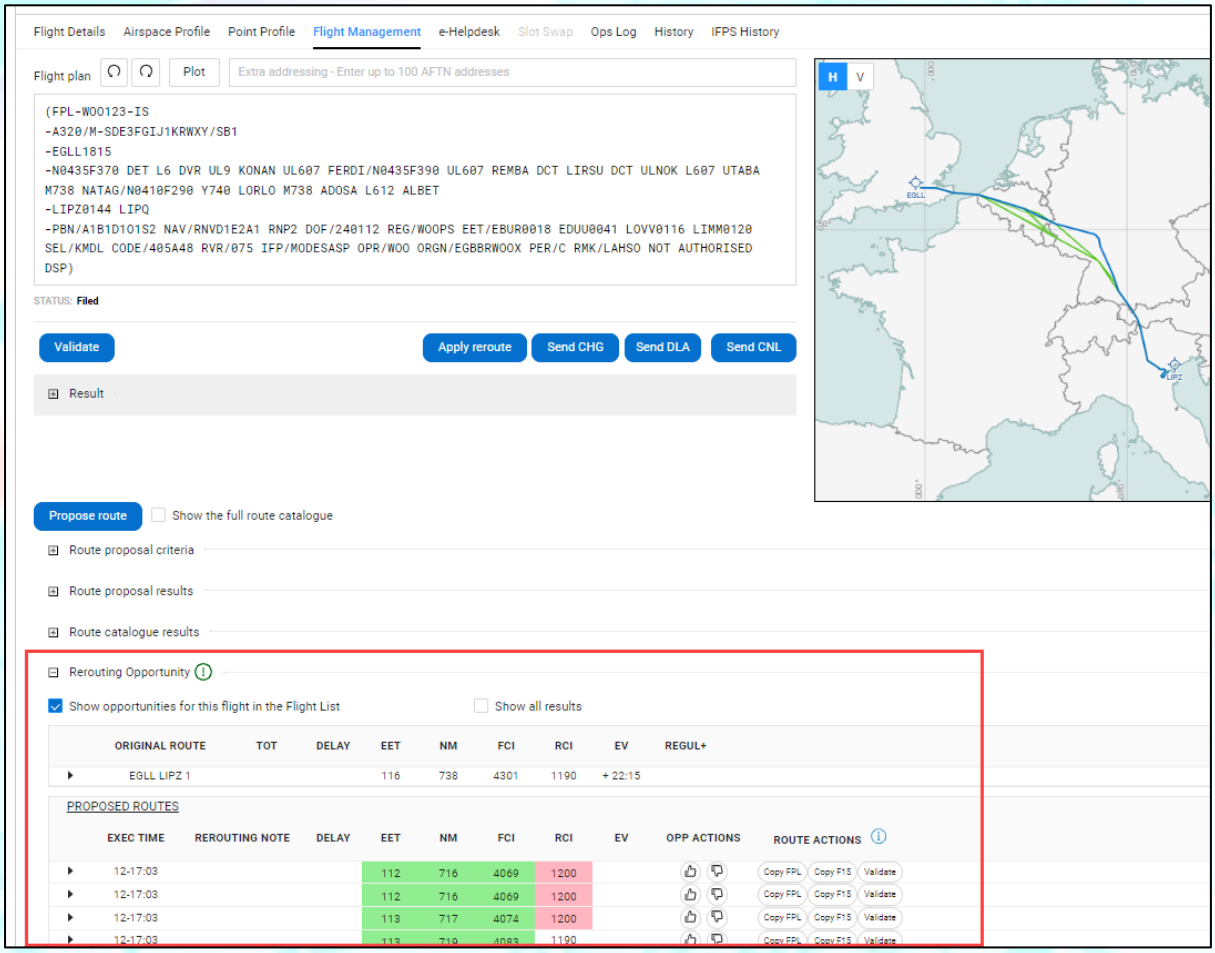
When an OPP is active, a hyperlink is available from the **OPP** column that opens the flight in the Flight Management page with the details of the OPP displayed.



In this image, there is an Alert configured to highlight active OPPs

Details of the OPP in Flight Management

After clicking on the hyperlink in the Flight List, Flight Management is opened with the '**Rerouting Opportunity**' area expanded:



The '**Rerouting Opportunity**' area contains:

- **Route comparisons** ①

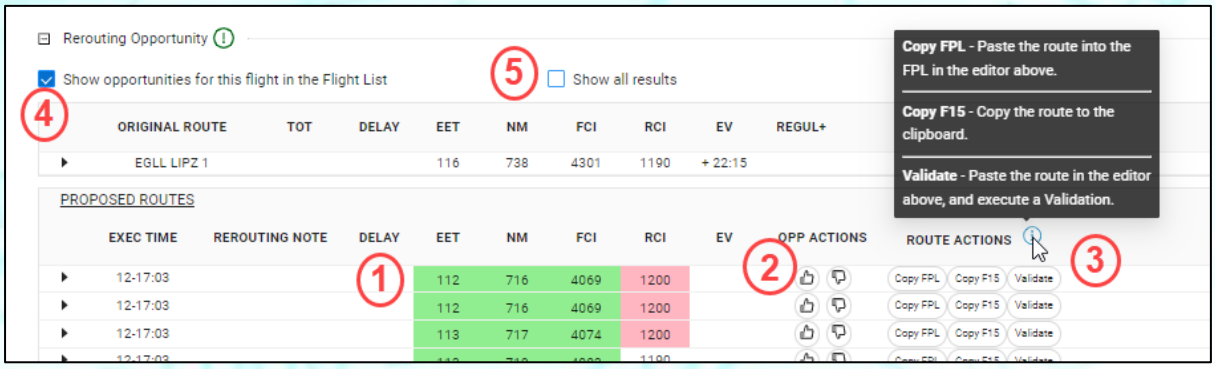
  The original route, as well as the alternative route. For each of those routes, the NM calculated costs (ATFM delay, flying time, route length, fuel burn and route charges) are given. A comparison of the two sets of costs is done which results in a colour highlight in the alternative route costs when they are higher (red) or lower (green):

- **OPP ACTIONS** ②
  - Give 'Like' Feedback
  - Give 'Dislike' Feedback

- **ROUTE ACTIONS** ③
  - **Copy FPL -** Paste the route into the FPL in the editor above.
  - **Copy F15 -** Copy the route to the clipboard.
  - **Validate -** Paste the route in the editor and execute a Validation.

- **An option to clear the information for this flight in the OPP column of the flight list** ④

- **An option to show all opportunity results or restrict the results** ⑤



Please check our Opportunity video tutorial here : YouTube

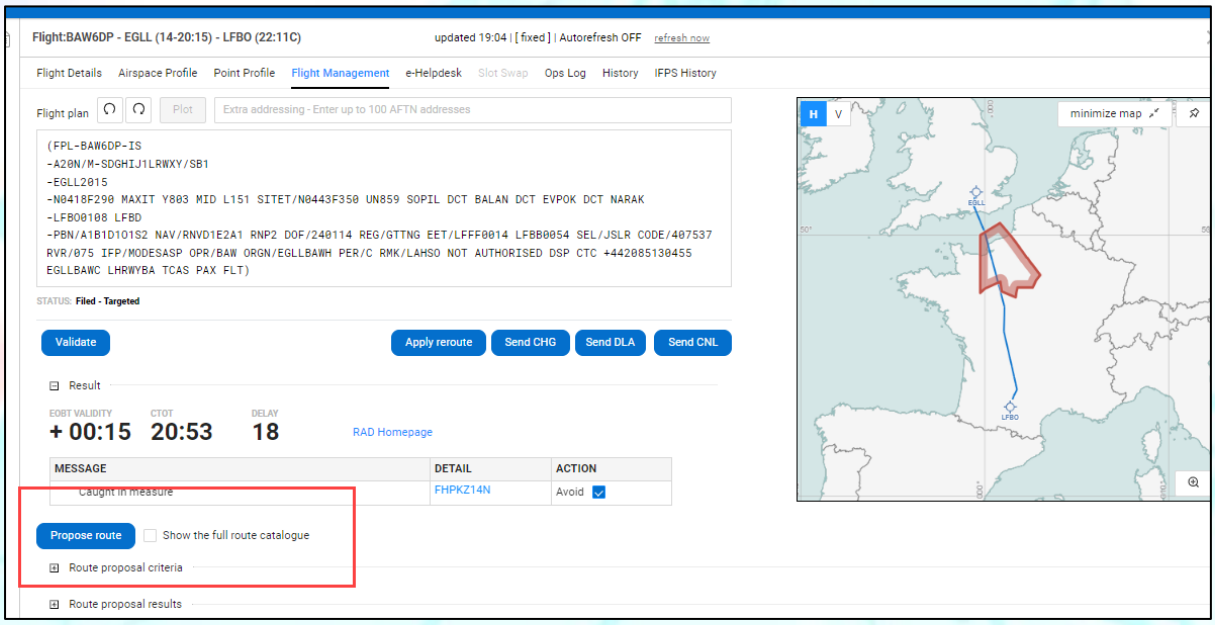
Propose Route

The ‘Propose Route’ feature uses the current/given route of a flight/flight plan as the basis to search for alternative routes.

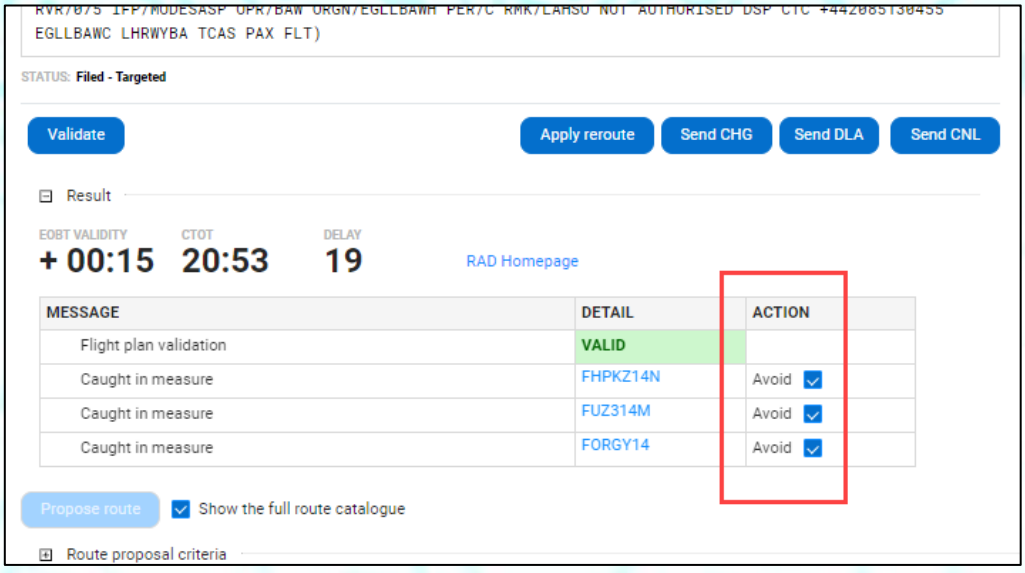
The feature is available in ‘Flight Management’, ‘Free Text Editor’ and ‘Nav Editor’.

⚠ CAUTION

The routes proposed are not NM recommended routes; it is the Aispace Users responsibility to determine the operational acceptability of the routes before use.



If the flight is caught in en-route measure(s), it is possible to select the measure(s) to force the route proposal search to avoid the selected measure(s).



Propose Route Results

After clicking on the 'Propose route' button, the 'Route proposal results' area is expanded containing:

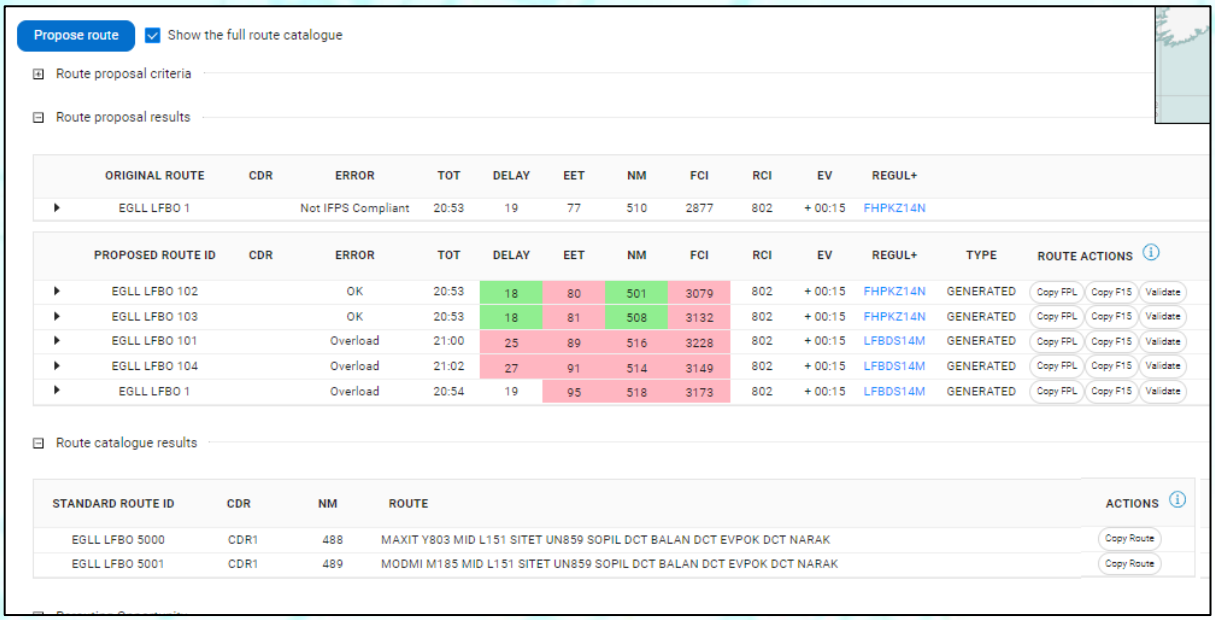
- **Route comparisons**

  The original route, as well as the alternative routes. For each of those routes, the NM calculated costs (ATFM delay, flying time, route length, fuel burn and route charges) are given. A comparison of the two sets of costs is done which results in a colour highlight in the alternative route costs when they are higher (red) or lower (green):

- **ROUTE ACTIONS**
  - **Copy FPL -** Paste the route into the FPL in the editor above.
  - **Copy F15 -** Copy the route to the clipboard.
  - **Validate -** Paste the route in the editor and execute a Validation.

- **Route catalogue results**

  The routes contained in the NM route catalogue for the flight's city pair (if the option "Show the full route catalogue" has been selected), including an action with each result to 'Copy Route'.



Route Proposal Criteria

This area shows the current defaults for the route proposals criteria and allows those defaults to be temporarily changed and/or the User to specify their own criteria to be used when generating routes. The area contains:

Via AS/PT – Forces the alternative routes to go via Airspaces and/or Points (horizontally and/or vertically).

Avoid AS/PT/Measures – Forces the alternative routes to avoid Airspaces, Points and/or Measures (horizontally and/or vertically).

Use Field 15 – When selected, uses the current/given route of a flight/flight plan as the basis to search for alternative routes. When not selected, direct (DCT) is used.

IFPS Compliant only - When selected, only returns route alternatives that are valid in IFPS.

Freeze outside IFPZ – When selected, ensures that the entry/exit point of the IFPS area is not changed.

Freeze SID/STAR - When selected, ensures that the SID/STAR is not changed.

Freeze from ADEP to this point

Freeze from this point to ADES

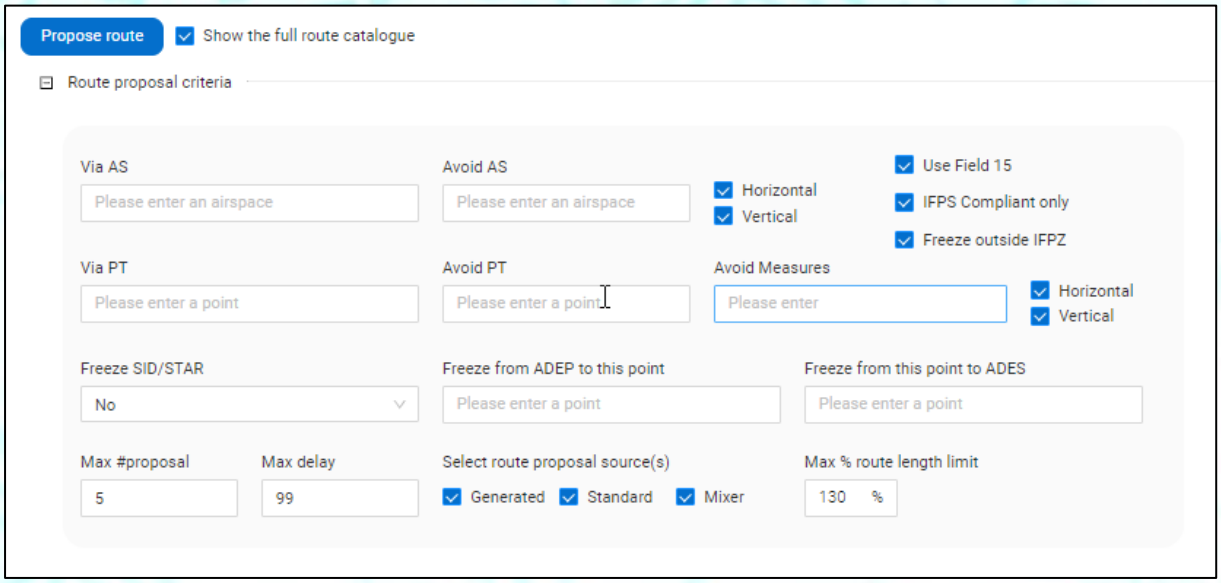
Max # proposals – Default set to 5, allowed values 1-10.

Max delay – Doesn't give alternative routes with ATFM delay more than this value.

Select route proposal source(s)

- **Generated** – Software route generation algorithm.
- **Standard** – NM route catalogue.
- **Mixer** – NM route catalogue mixing algorithm.

Max % route length limit – How much the alternative route distance can be extended (max. 300%).



Please check our Propose routes video tutorial here : YouTube

ReRoute Proposals (RRP)

During the Tactical Phase of operations, the NMOC monitors the European ATFM Network situation and where possible, identifies flights that would benefit from a reroute (e.g. ATFM delay reduction, military airspace release). A ReRoute Proposal (RRP) is an alternative route offered to an airspace user. When the NMOC workload permits, RRPs can be sent to propose more efficient routes to Airspace Users.

NMOC considers the currently filed route in comparison with route alternatives in terms of ATFM delay, flying time, route length, fuel burn and route charge information. When the NMOC finds an alternate route that may be interesting to an Airspace User, an RRP is generated that is visible in NMP Flight, which will result in the booking of an ATFM slot for that flight (when regulated).

To secure the booked ATFM slot, a CHG or CNL/refile must be received before the Respond-By (RESPBY) time of the RRP (30 minutes after creation).

Airspace Users not wishing to take up an RRP are requested to reject the RRP.

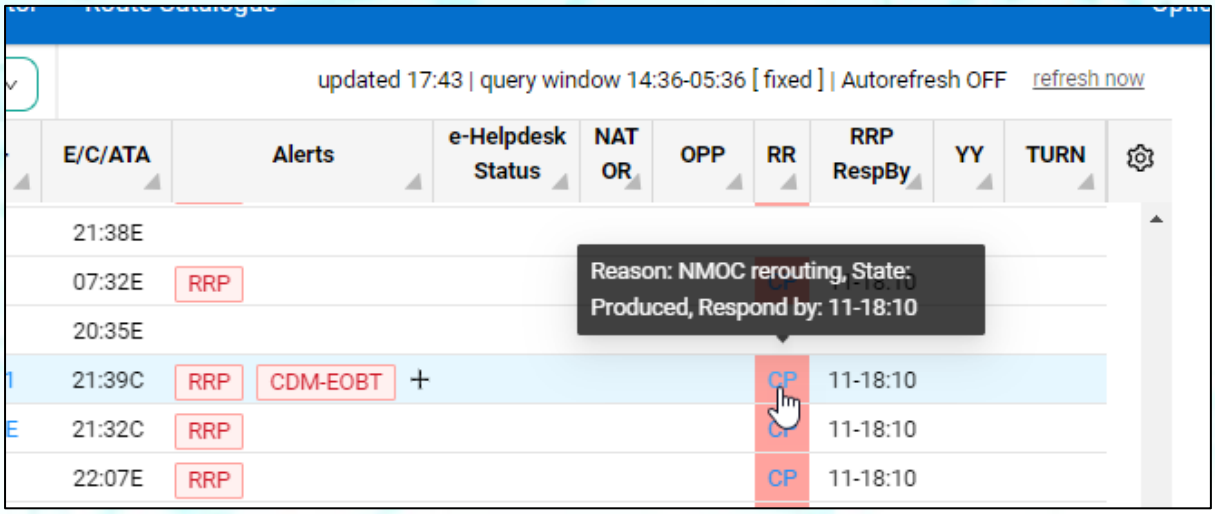
Active RRP in the Flight List

There are two optional columns available in the Flight List to show RRP information.

- **RR** ("Rerouting")
- **RRP RespBy** ("Time by which you need to reroute, or reject (RJT) the RRP")

The RR column results contain a tooltip when an RRP has been generated for a flight. The tooltip contains the **Reason** for the RRP, the **State** of the RRP and the **Respond by** time of the RRP.

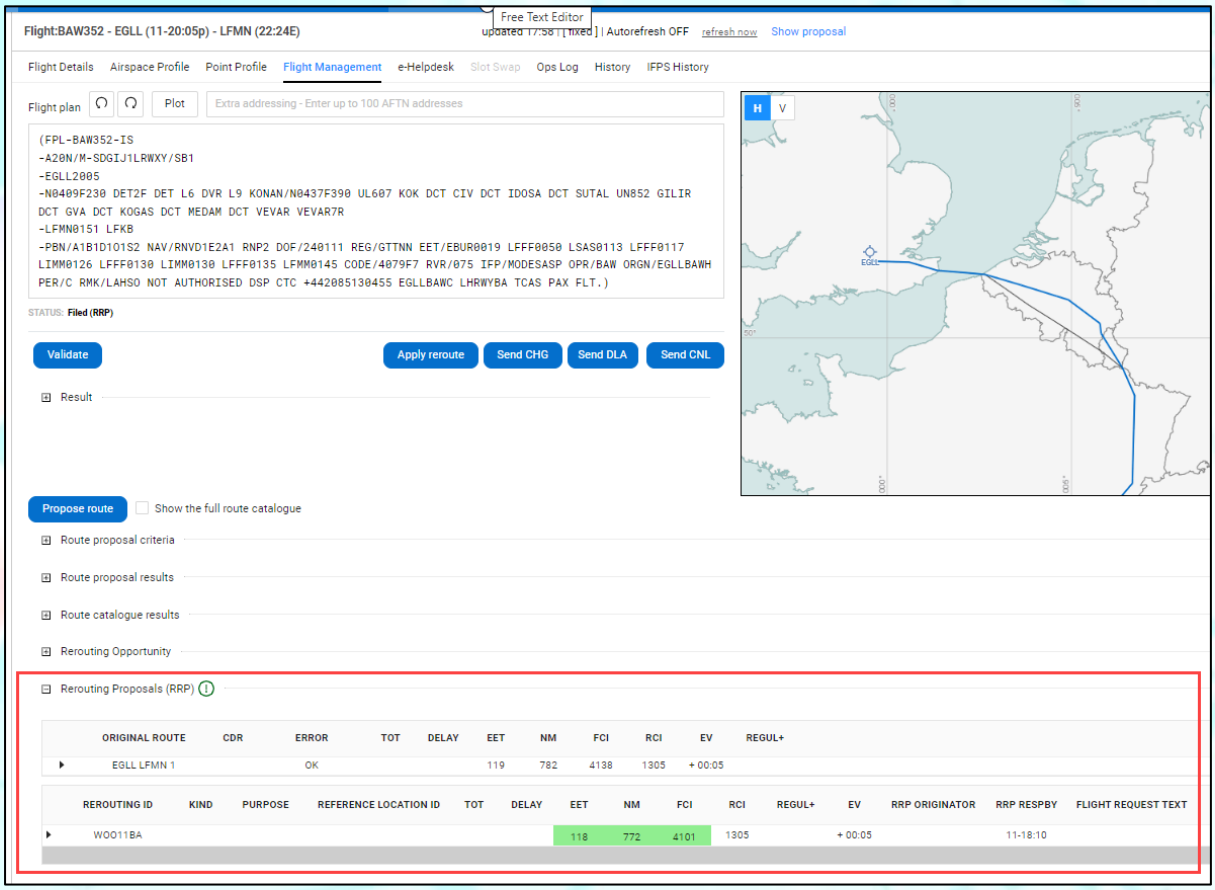
When an RRP is active, a hyperlink is available from the **RR** column that opens the flight in the Flight Management page with the details of the RRP displayed.



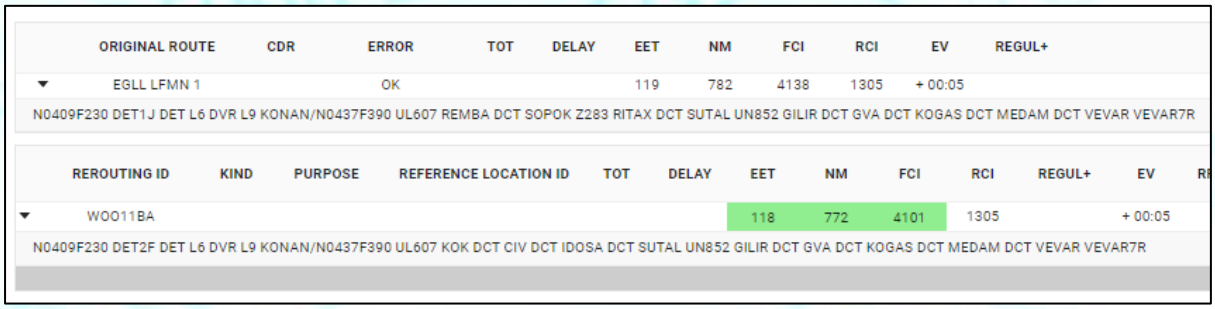
In this image, there is an Alert configured to highlight active RRPs

Details of the RRP in Flight Management

After clicking on the hyperlink in the Flight List, Flight Management is opened with the '**Rerouting Proposals (RRP)**' area expanded:



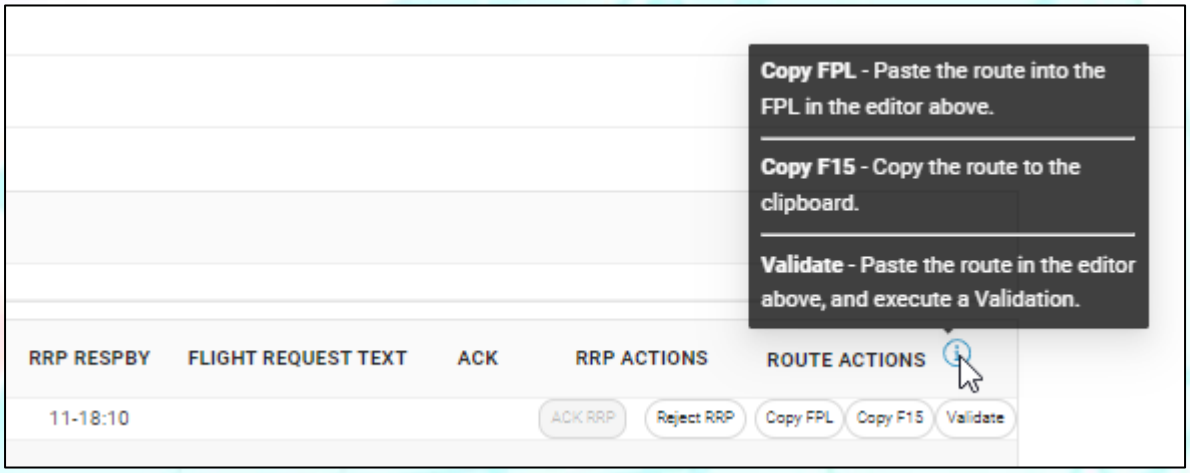
The '**Rerouting Proposals (RRP)**' area contains the original route, as well as the alternative route. For each of those routes, the NM calculated costs (ATFM delay, flying time, route length, fuel burn and route charges) are given. A comparison of the two sets of costs is done that results in a colour highlight in the alternative route costs when they are higher (red) or lower (green):



The alternative route also contains two sets of ACTIONS:

- **RRP ACTIONS**
  - **REJECT RRP**
  - **ACK RRP** (*currently not used*)

- **ROUTE ACTIONS**
  - **Copy FPL -** Paste the route into the FPL in the editor above.
  - **Copy F15 -** Copy the route to the clipboard.
  - **Validate -** Paste the route in the editor and execute a Validation.



Please check our ReRoute Column video tutorial here : YouTube

ATFM Slot Swap

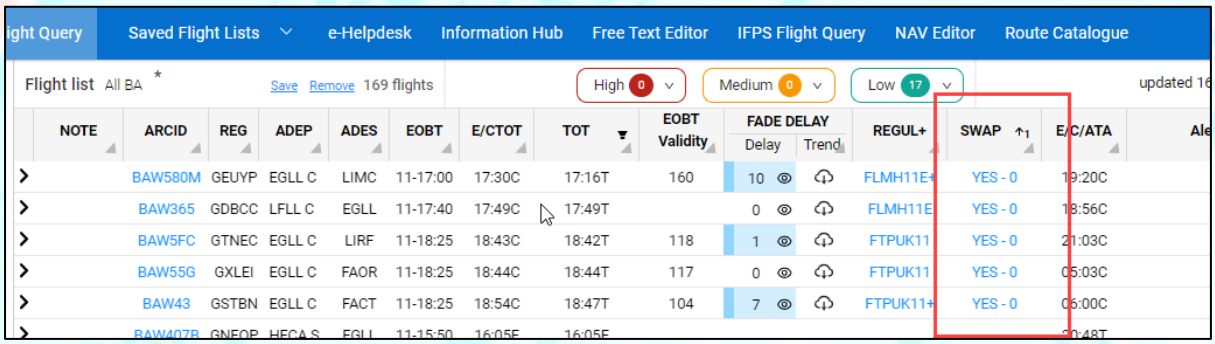
The NM slot swapping functionality is used to swap the ATFM slot of two flights that are caught in the same most penalising regulation.

The main use cases for an AO to request ATFM slot swaps are:

- Reduce the ATFM delay of the subject flight whilst correspondingly increasing the delay of a less critical candidate flight.
- Increase the ATFM delay of the subject flight that can no longer respect its CTOT time whilst reducing the delay of a candidate flight that can accommodate an earlier departure time.

The Slot Swap Process

When two flights that have been issued an ATFM slot in the same most penalising regulation, with the same aircraft operator (or an agreement between different aircraft operators), slot swapping is available. The flights that are suitable for slot swapping are shown in the 'SWAP' column of NMP Flight. The column then indicates "YES" when the flight is suitable for a slot swap. The column also indicates the number of slot swaps that have already been performed on the flight (a maximum of 3 swaps is allowed).



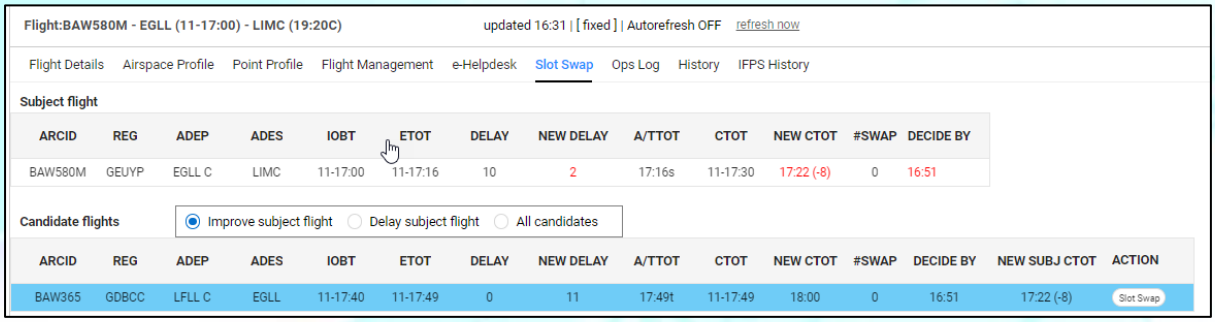
By clicking on "YES" in the 'SWAP' column, the Slot Swap interface is displayed with:

- ***Subject flight*** indicating the selected flight you are working on.
- ***Candidate Flights*** containing the potential candidate flight(s) for slot swapping.

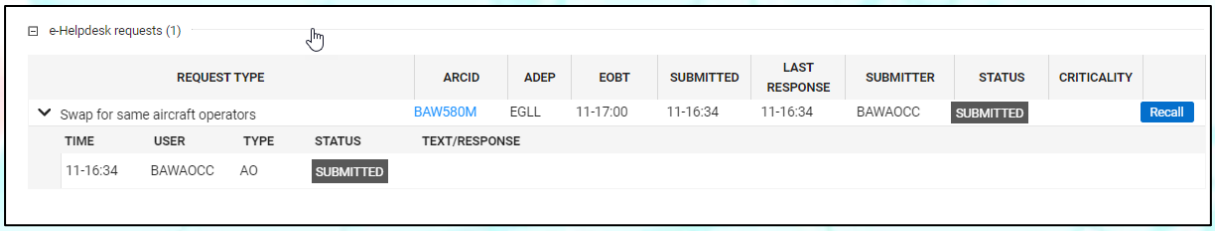
Candidate flights can be filtered by selecting one of:

- **Improve subject flight**: Only displays the candidate flights that will improve the CTOT of your flight,
- **Delay subject flight**: Only displays the candidate flights that will worsen the CTOT of your flight,
- **All candidates**: To list all Slot Swap opportunities (selected by default).

You then identify the best option you can achieve by clicking on the various *Candidate flights* in the list and checking the impact *(shown in red)* on the *Subject flight.* To send the Slot Swap request to NM, click on the 'Slot Swap' button on the candidate flight that you have chosen for the swap.



When the swap slot request is received at NMOC, it enters the e-Helpdesk queue to be verified by NMOC. Each swap slot request is assessed automatically and/or manually by NMOC for compliance with the Slot Swap rules and for ATFM network impact.



In case of a negative network impact, the swap request will be refused by NMOC.

If the slot swap request is approved by NMOC, the two concerned flights slots are swapped. The approval results in the transmission of slot revision messages for both flights and the e-Helpdesk request is moved to status **RESPONDED.**

Please check our slot swap video tutorial here : YouTube