

NEFAB Customer Consultation

Helsinki, May 26 2016

Meeting notes and conclusions

The objective of the meeting was to exchange the experiences with the use of Free Route Airspace (FRA) in NEFAB so far and with regard to the future developments.

Presentation is available on NEFAB web in Airspace Users/[FRA Consultations](#).

A summary of topics and conclusions is shown in the table below.

<i>Free Route Airspace and Flight planning</i>	
NEFAB Free Route Airspace	NEFAB FRA is composed of two FRA volumes: NEFAB East covering States of Finland, Estonia and Latvia, and NEFAB West covering Norway FIR. There is no requirement to use (intermediate) waypoints within a FRA volume, only at the FRA external borders, including the border between Norway and Finland as well as with the FRA in Sweden and Denmark. (See also NEFAB/NEFRA Scenario 8)
Bodo Oceanic	<p>When Bodo Oceanic is published as FRA (after formal approval by ICAO planned summer 2016) the NEFAB West FRA will be composed of Bodo Oceanic and Norway FIRs as one FRA volume.</p> <p>When Bodo Oceanic becomes FRA, the FRA will interface with Iceland which is not part of the ECTL region and the IFPS Zone. Therefore a waypoint will be needed for entering the continental airspace. The interfaces with adjacent airspace will be improved to provide more options.</p>
Flight planning with intermediate points	Airspace users can use any intermediate waypoint at own preference, including lat/long. From users perspective intermediate points for long haul flight segments may be required by airspace users' flight planning systems. Shorter segments can also be more optimal than long DCT segments. Lat/long coordinates as intermediate points are eligible and can be used by airspace users. There are relatively few flight plans using lat/long coordinates, and excessive use of these coordinates may create safety issues.
Temporary Segregated Areas	In the NEFAB concept all relevant TSAs have buffer zones to ensure that flight plan trajectories are not too close to a TSA. Adequate number of waypoints is available allowing airspace users to plan clear of the TSA. The airspace users pointed out that in some areas the published TSA buffer zone waypoints should be aligned with the adjacent airspace structure when close to FRA borders. In particular waypoints in South Norway can be adjusted

	<p>to be aligned with the North Atlantic routes, and that more additional waypoints are considered beneficial on the South Norwegian border.</p>
<p>Unusual flight plans</p>	<p>In some occasions unusual flight plans have been identified by ANSPs, e.g. using intermediate points on FIR boundaries in the NEFAB EAST (Estonia, Finland, and Latvia), or using entry/exit points as intermediate points.</p> <p>NEFAB East (FIRs of Estonia, Finland and Latvia) is a seamless cross-border FRA therefore no intermediate points are needed on these FIR boundaries unless required by an operator's system.</p> <p>Operators and flight planning service providers requested information from ANSPs regarding unusual or "strange" trajectories, to follow up the reasons of such planning and find more optimised solutions.</p>
<p>FRA Entry and Exit adjacent/subjacent airspace</p>	<p>FRA entry and exit points are defined points at the borders of the FRA with adjacent/subjacent airspace. FRA entry and exit points are not always coincident with FIR borders, e.g. there are compulsory ATS route segments from FIR Boundary to the Entry/Exit point along the border with Russia.</p> <p>For arriving and departing traffic at airports within NEFAB States the FRA entry and exit coincide with SID end or STAR start points or at TMA border where SID and STARs are not published. Even if the SID/STAR Entry/Exit point is below the FRA, the flight is FRA eligible in the fixed route part of the flight if the intention is to use the FRA.</p> <p>This concept is also agreed with Denmark and Sweden where the lower level of FRA is FL285, hence flights departing from/arriving at airports in NEFAB States airports close to Swedish border shall be considered FRA eligible even if the climb/descend trajectory is within DK-SE FAB non-FRA airspace. However, due technical requirements in EUROCONTROL systems, flight plans with DCT may be rejected by the IFPS when their algorithm calculates that the flight will be below FRA. This is because there is defined minimum FRA FL for all points. NEFAB Programme is aware that this has caused some problems in flight planning and will have a closer look at this in the further development and optimisation of the FRA concept, in particular in the context of Borealis FRA, e.g. using additional published waypoints as a solution.</p>
<p>Airport/TMA connectivity</p>	<p>For some airports (e.g. Oslo Gardermoen, Helsinki Vantaa) transition routes are published in order to optimise traffic flows and reduce traffic conflicts. Transition routes are published in the State's AIP owning the airspace where the actual route resides. This is an issue when the airport is close to another State, e.g. Helsinki close to Estonian airspace and Oslo/Gardermoen close to Swedish airspace.</p> <p>Airspace users have experienced challenges at some airports in Norway.</p>

In some areas the users pointed at challenges in flight planning in TMA interface with FRA, in particular related to Helsinki departures and transiting Riga TMA. Also challenges in Norway are experienced due to lack of SIDs and STARs when TSAs are active (ENBO, ENEV, ENVA).

The concerns are specific and the users are in dialogue with respective ANSPs and States NSAs, however a general remark is that SIDs and STARs would be appreciated for all airports.

In some circumstances the controller will redirect a flight direct to a point within the TMA diverging from the filed flight plan, e.g. between the airports Riga (Latvia) and Turku (Finland). This is because the actual runway in use differs from the filed flight plan or the traffic situation does not require the flight to fly via the published Entry/Exit points therefore a shortcut is provided.

FUA

<p>FUA concept, TSA and buffer zones</p>	<p>The FUA concept is implemented in all NEFAB states in accordance with Commission Regulation (EC) 2150/2009 and as detailed in EUROCONTROL ERNIP part 3. The intention is to share the airspace availability between States military and other airspace users. The State is setting the National priority rules and conditions. All NEFAB States are designing the TSAs after the same concept with buffer zones for each relevant TSA. Flight plans penetrating the buffer zone will be rejected by IFPS. The corners of the buffer zones are published and can be used for flight planning to avoid the buffer zone.</p>
<p>AUP, UUP and NOTAM</p>	<p>NEFAB States publish activation of the TSAs via Airspace Use Plan (AUP) and NOTAM, except Finland who does not use NOTAM. Cancellation of TSA reservation is published in Use Update Plan (UUP) making the airspace available for civil operations.</p> <p>FUA restrictions in FRA are challenging for flight planning systems as there are numerous conditions, and manual interference frequently required. The flight planning systems are unable to process AUPs. Developments of this functionality are ongoing, planned to be deployed in 2017. Until then the ANSPs are requested to continue with NOTAM distribution. The operators will inform when their systems are capable, e.g. via EUROCONTROL.</p>
<p>Users challenges in FPL systems and TSA activation in FRA</p>	<p>Operators are having challenges with handling last minute changes in the flight plan due to airline procedures, maturity of the system for FUA capability (AUP and UUP), reliance on automated processes, and lack of manpower required to check and introduce all last moment's amendments. Due to this, a UPP on the release of reserved airspace will not always benefit users. Push announcements would be beneficial in cases if large military training areas are released allowing substantial savings of mileage.</p> <p>The airspace users would like to see that the civil traffic flows are being analysed before the activation of TSAs to minimise the impact on civil traffic. It was also noted that statistics of frequent</p>

major military activities in certain areas might help in planning. In this context the users pointed at the TSAs west of Helsinki in relation to usage statistics.

AIP

Common AIP publications

The initial idea of a common air navigation information publication in NEFAB could not be implemented as AIPs can only include the information of that particular state i.e. 'foreign' data are not allowed, ref the issue concerning transition routes in adjacent State's airspace.

For linking the publications, a reference to another state's AIP can be added in the national AIP. From the users perspective it is important to have such references if a route is planned across more than one FIR.
ANSPs are working closely with NSAs on publication issues.

Other

NEFAB/NEFRA Scenario 8

NEFAB ANSPs are cooperating with DK/SE FAB ANSPs in establishing the seamless FRA interface between the two FABs. Next step is planned on 23 June 2016 when the compulsory requirement for flight planning at fixed points between NEFAB EAST and DK SE FAB will be removed. The interface with Norway will be implemented at a later stage to be decided due ATM system upgrade.

NEFAB Programme will provide information regarding June 23 implementation at the NEFAB web site www.nefab.eu/airspaceusers

Borealis FRA

NEFAB is also cooperating with FABs (states) in the Borealis Alliance with a key initiative to extend FRA across three FABs /NEFAB, DK-SE FAB, UK/IRL FAB) and Iceland, covering the airspace across nine States.

Other adjacent airspace

Users requested cooperation related to FRA concept with seamless borders and common flight planning rules with adjacent airspace, in particular Lithuania.