

NEFAB

north european functional airspace block

State of Play FRA implementation

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ANSCB meeting 12 October 2015

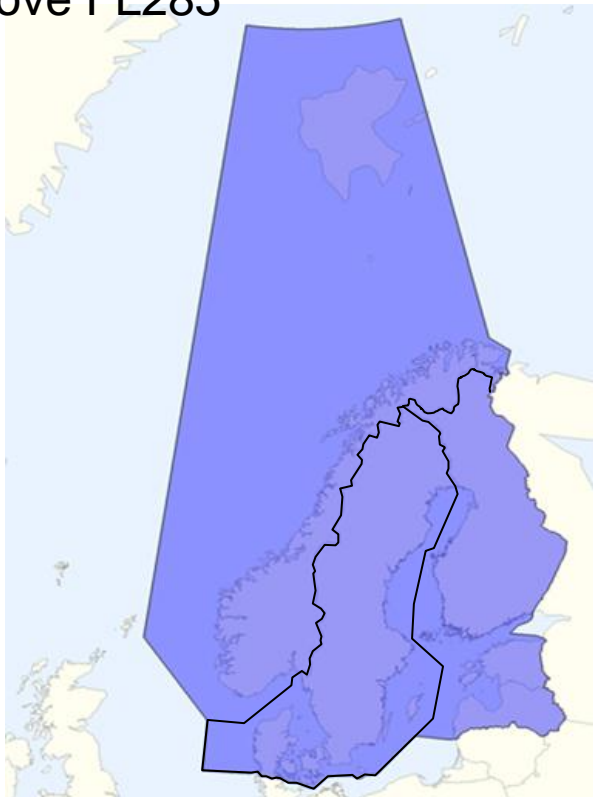
FRA Implementation highlights:

- ▲ 12 November 2015 NEFAB will implement FRA above FL95 in Estonia, Finland and Latvia, and above FL135 in Norway (Scenario 6)
- ▲ NEFAB FRA will consist of two FRA volumes: Finland, Estonia and Latvia as one seamless FRA, Norway as one FRA
- ▲ The 3 FRA volumes between NEFAB states and DK-SE FAB states will be connected with harmonized Flight Planning rules
- ▲ 23 June 2016 FRA volumes within NEFAB and with DK/SE FAB will be connected seamless (Scenario 8)
- ▲ In Bodø Oceanic FRA will be implemented in accordance with formal processes with ICAO in the NAT region.

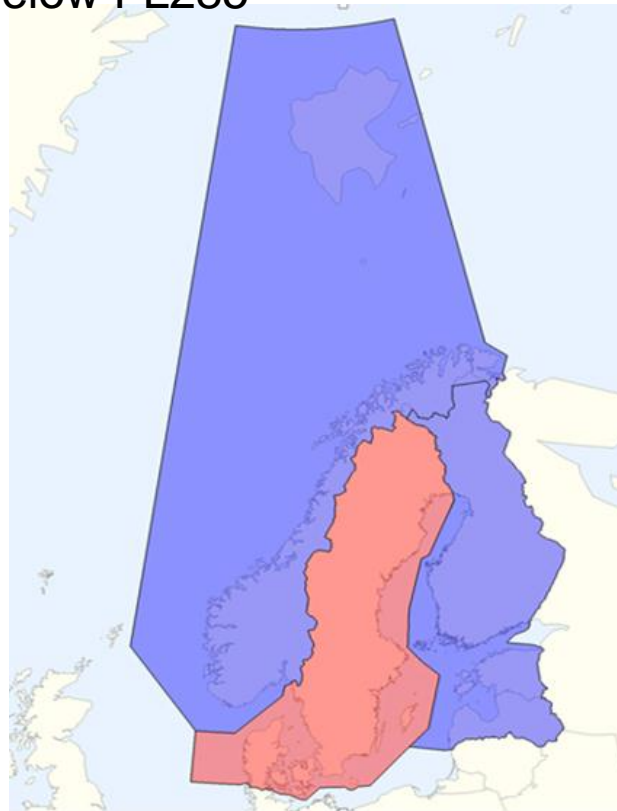


FRA Volumes Nov 2015 (NEFRA Scenario 6)

Above FL285



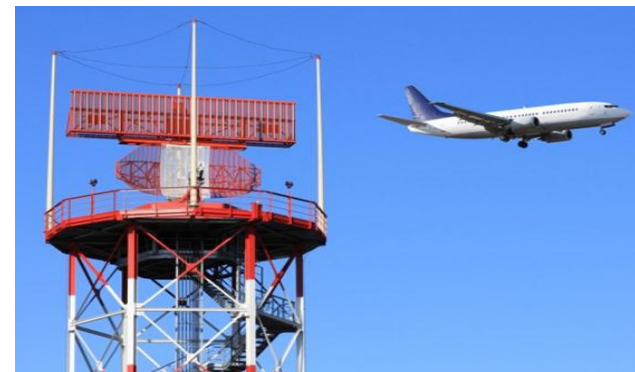
Below FL285



Note: Bodø Oceanic will be included following formal ICAO process in the NAT region

NEFAB 2015 Target Concept (Nov 2015)

- ▲ **User preferred trajectories** will be enabled
- ▲ **ATS-route network maintained** and enhanced ensuring connectivity to the Free Route Airspace, airports and neighboring areas
- ▲ Users will be able to flight plan their preferred trajectories based on **common NEFAB FRA flight planning rules**
- ▲ **Sectors will be adapted** to accommodate the changes in traffic flows and enhance capacity.

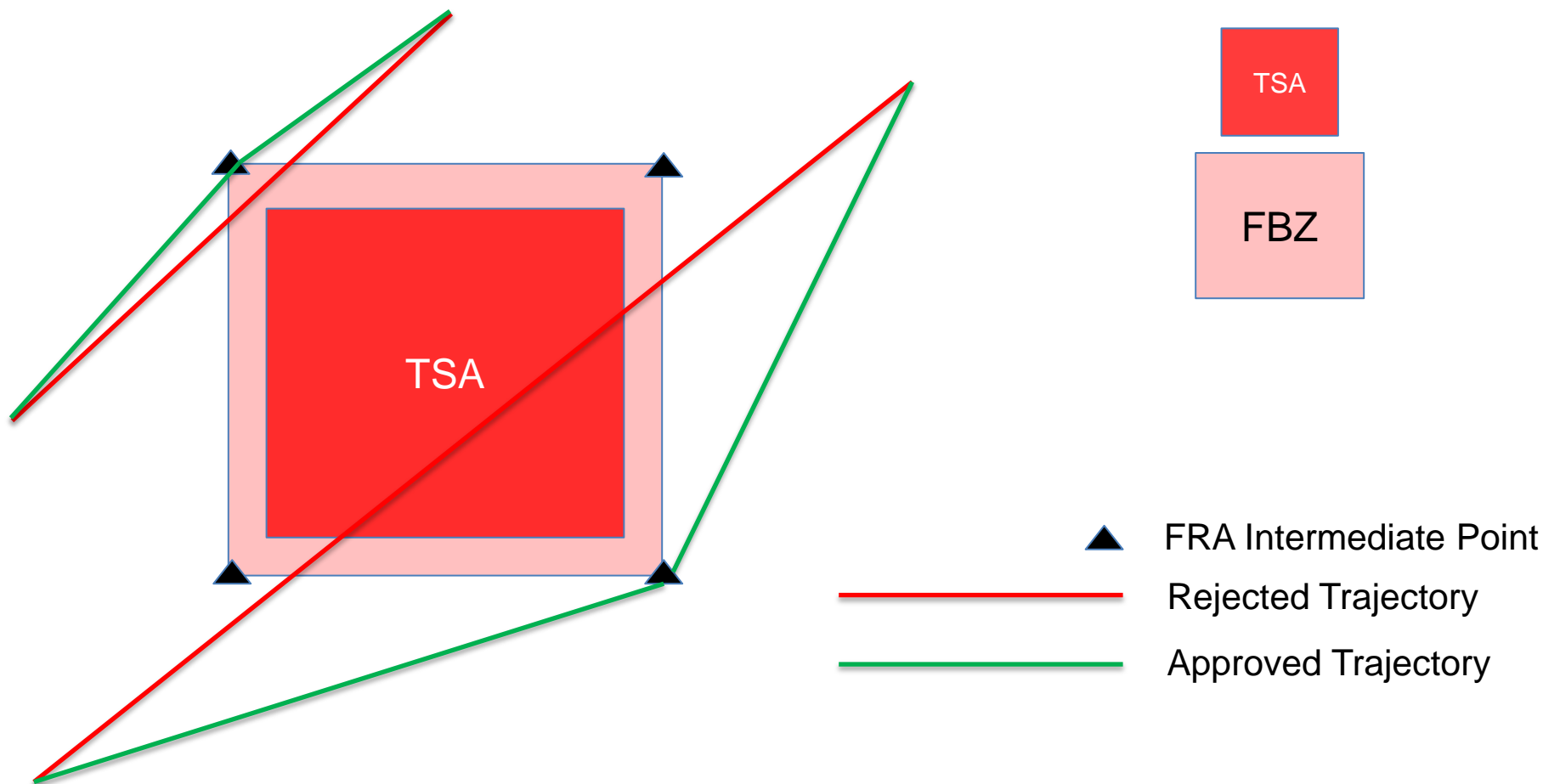


NEFAB 2015 Target Concept (Nov 2015)

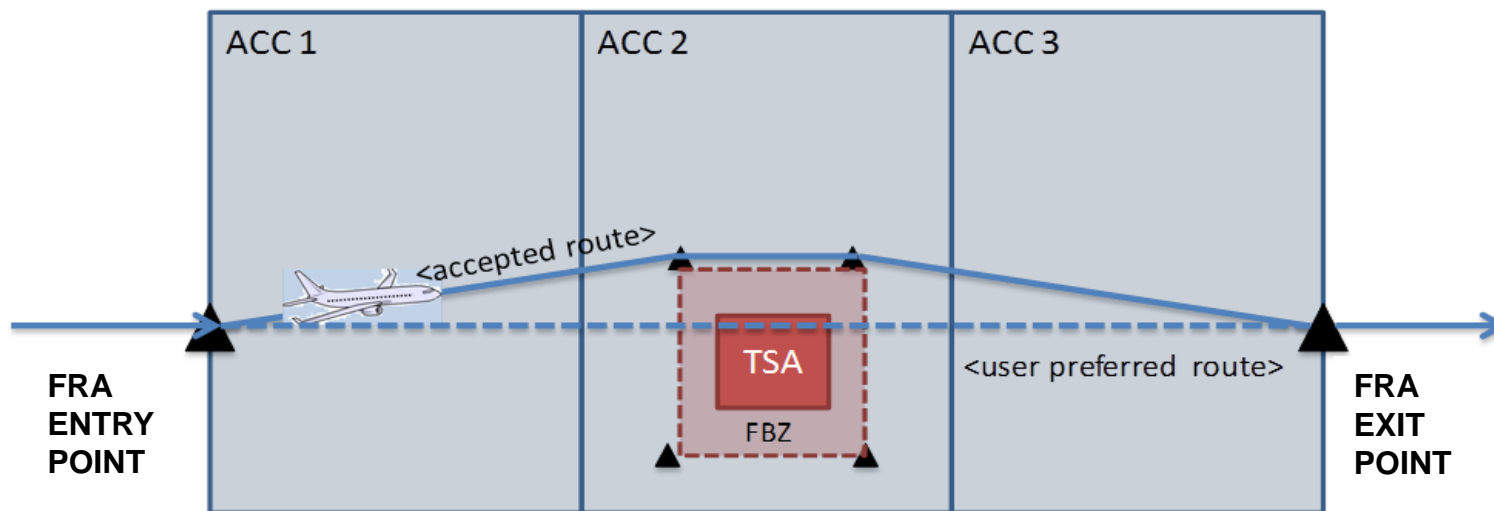
- ▲ **The military airspace structures re-designed as required** to accommodate FRA traffic flows and military user requirements.
- ▲ **ASM procedures to be harmonized.** Implementation of **LARA ASM-tool. Flight Plan Buffer Zone Methodology (FBZ)** introduced.
- ▲ **ATFCM processes through national FMPs maintained.**
- ▲ **Automated flight coordination and ATM-system interconnectivity enhancements** will enable safe and efficient ATS-provision
- ▲ **Rules, regulations and ATC-procedures adapted** to support the changes



Flight Plan Buffer Zone Methodology



NM (IFPS) Flight Plan Checking



Airspace reservation process

- At D-1 military informs their request
- AMC makes the Airspace Use Plan (AUP). (Some States will promulgate activation of TSA also with NOTAM)
- AUP lists all the TSA's that will be active (time/flight levels).
- NM (IFPS) checks the FPL's and rejects if the trajectory penetrates the FBZ.
- If reservations change, an Updated Use Plan (UUP) will be issued.
- ATC can tactically shorten the route if possible (e.g. TSA not yet active).



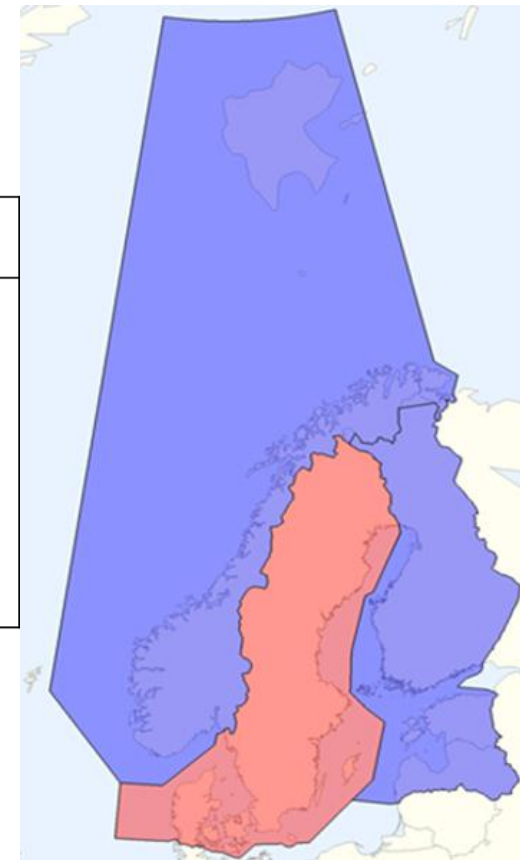
Flight planning rules in Free Route Airspace

- ▲ Flights with planned trajectory in Free Route Airspace are eligible for user preferred routing in controlled en-route airspace.
- ▲ In user preferred routing, the route may contain any significant points, NAV aids or lat/longs and DCT between these points.
- ▲ Special conditions apply when arriving and departing to/from an aerodrome.
- ▲ Flight Planning Rules for FRA are harmonized in NEFAB and with DK/SE FAB (NEFRA Programme)



Flight planning rules

From	To	Remark
FRA Entry Point (E)	FRA Exit Point (X).	Flight plan DCT or via one or several additional points. Such an additional point can be either a NAV aid/waypoint or entered as lat/long coordinates.
	FRA Arrival Transition Point (A).	
	FRA Intermediate Point (I).	
FRA Departure Transition Point (D)	FRA Exit Point (X).	
	FRA Arrival Transition Point (A).	
	FRA Intermediate Point (I).	
FRA Intermediate Point (I)	FRA Exit Point (X).	
	FRA Arrival Transition Point (A).	
	FRA Intermediate Point (I).	



Departing from an aerodrome

Access to FRA for departing traffic is via a FRA Departure Transition Point (D).

The FRA Departure Transition point is either:

- SID final waypoint or TMA Exit Point as defined in RAD Appendix 5.
- For EFHK and ENGM departures the last point on a FRA Transition Route.

From FRA Departure Transition point a DCT segment is allowed.



Arriving to an aerodrome

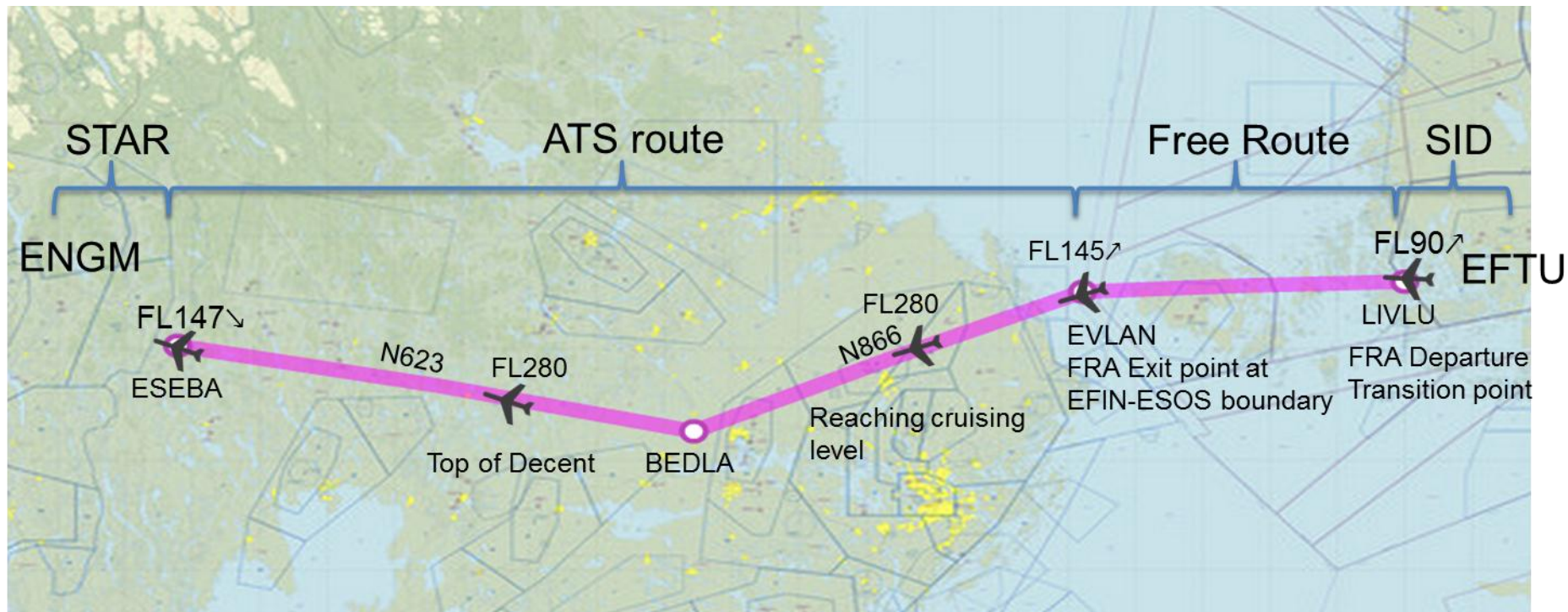
Arriving traffic may file DCT to a FRA Arrival Transition point (A).

FRA Arrival Transition Point is either:

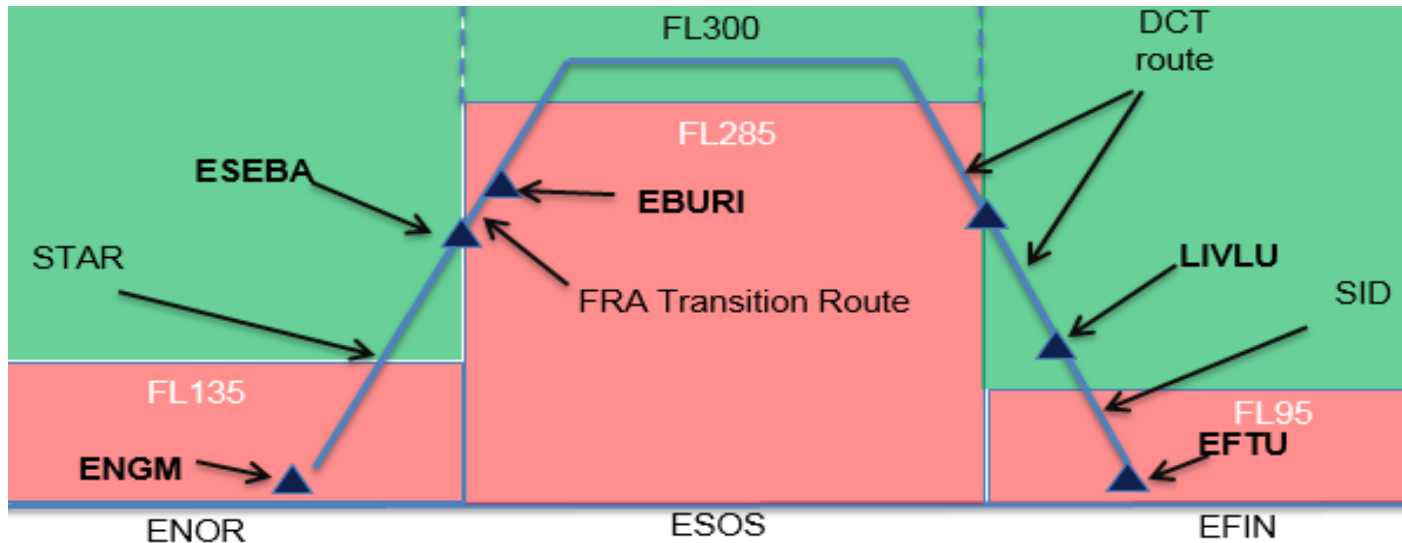
- STAR initial waypoint or TMA boundary point as defined in RAD Appendix 5,
- for EFHK and ENGM arrivals the first point on a FRA Transition Route



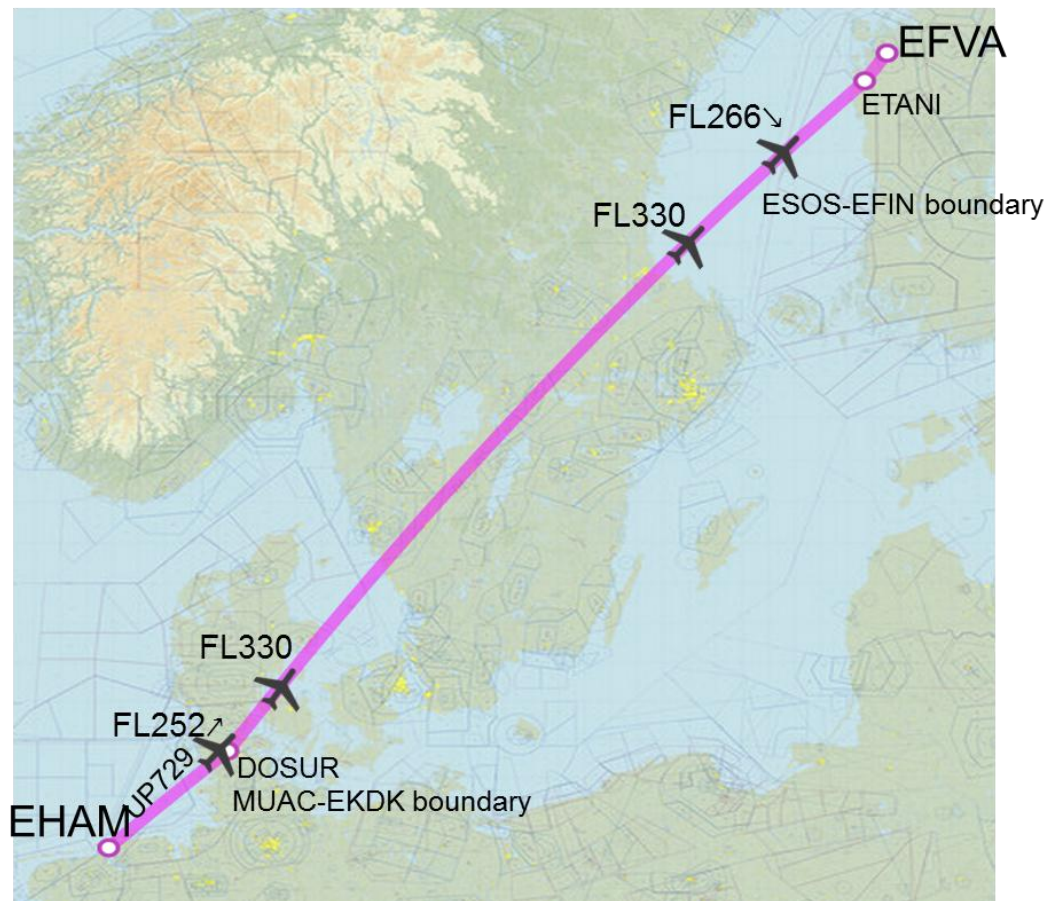
Flight planning example below FL285 NEAB and DK/SE FAB



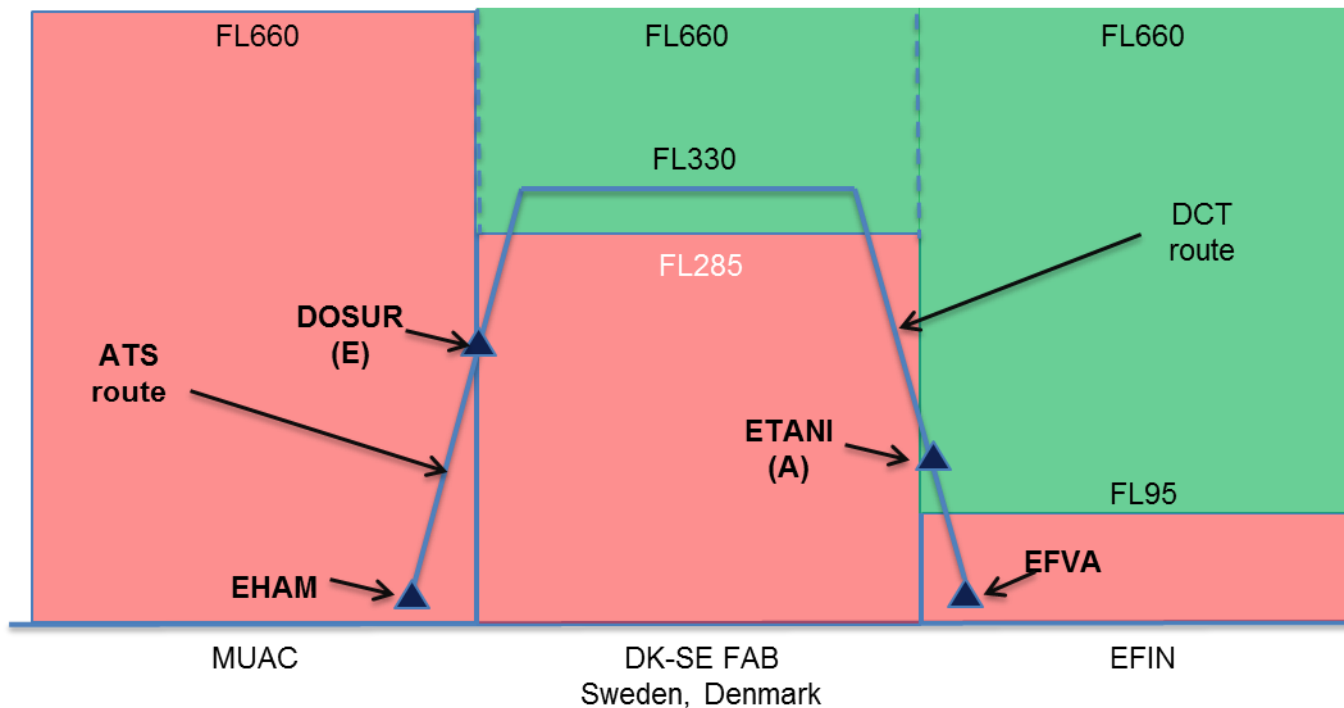
Flight planning example in Free Route Airspace NEFAB and NEFRA



Departing from an aerodrome outside NEFAB



Departing from an aerodrome outside NEFAB

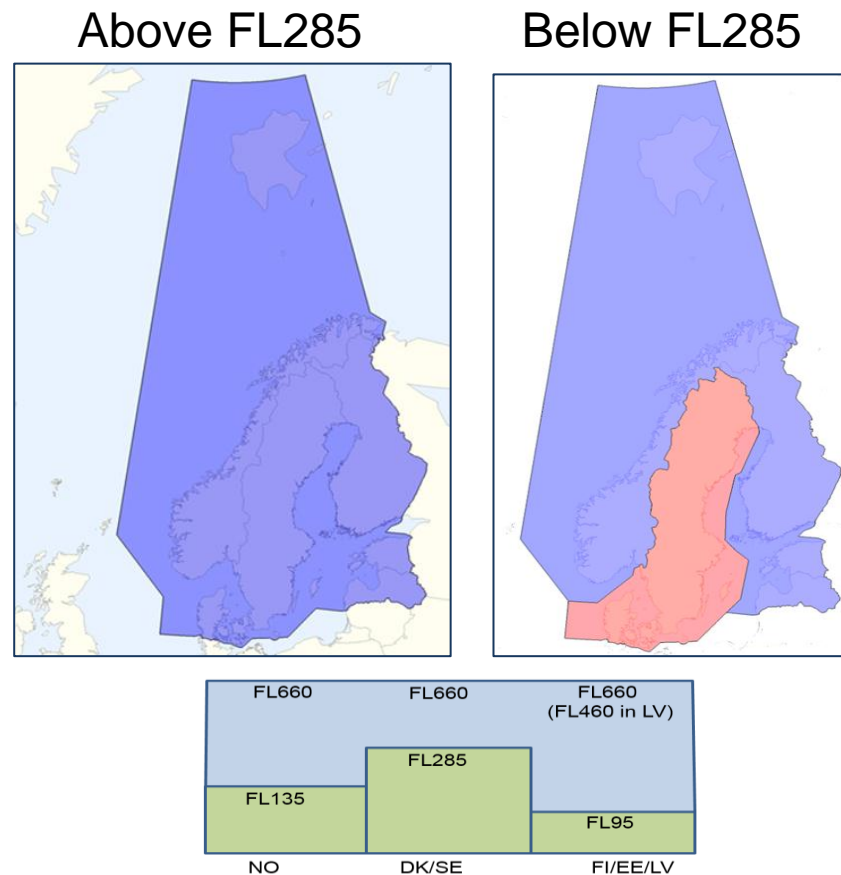


FRA Volumes June 2016 (NEFRA Scenario 8)

Main changes from Scenario 6:

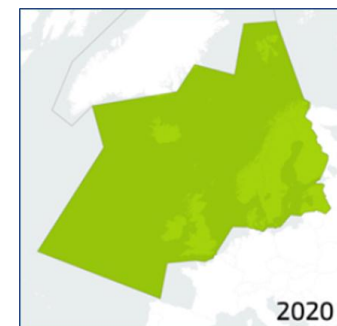
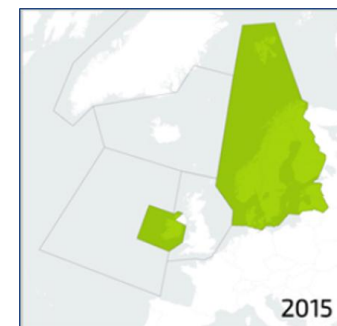
- ▲ NEFAB one FRA volume*
- ▲ Seamless connection between NEFAB and DK/SE FAB FRA Volumes

* Bodø Oceanic will be included following formal ICAO process in the NAT region



Borealis FRA Programme

- ▲ NEFAB ANSPs are members of the Borealis alliance (Avinor, EANS, Finavia, IAA, Isavia, LFV, LGS, Naviair)
- ▲ Borealis FRA Programme to implement FRA across the FABs and States airspace covered by the alliance, built on the NEFRA concept
- ▲ NEFRA phase 2 by end 2017, included as a integral part of Borealis FRA Programme.
- ▲ Borealis FRA concept to be implemented by 2020.
- ▲ Concept based on NEFRA, i.e. seamless connection of individual FAB/State FRA volumes.



Thank you for the attention

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Manager

NEFAB Programme Office