

UK Free Route Airspace

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December 2 has been a big day in the UK – it marks the **biggest airspace change ever implemented in the United Kingdom.**

A big portion of UK airspace is now free route airspace, and here's what you need to know about it.

What is 'free route' airspace?

In '*not* free route airspace' you are confined to what is effectively a motorway (freeway if you're American) in the air – a big corridor, defined by points along it, and you follow these until you reach your junction and turn off. It is rarely the most direct route.

Free route airspace allows you to route from a defined entry to a defined exit point direct. Straight through the fields if you like. It also allows more freedom for operators to fly the most time or fuel efficient route, taking into account weather.

The benefit is big.

That it is.

The new airspace structure in the UK is expected to **save around 500,000 nm a year** of flying and that means a big reduction in CO2 – they are estimating around **12,000 tonnes a year.**

Here is NATS own article on it.

Largest airspace change ever undertaken in the UK



x2
over 150,000 nautical miles² - a footprint twice the size of the UK

Enables
500000
nautical miles of flying saved per year for aircraft using this airspace



x23
equivalent to 23 trips around the world

Reduction of up to
12,000
tonnes of CO₂ per year in UK airspace



equivalent to the carbon footprint of
3,500
family homes



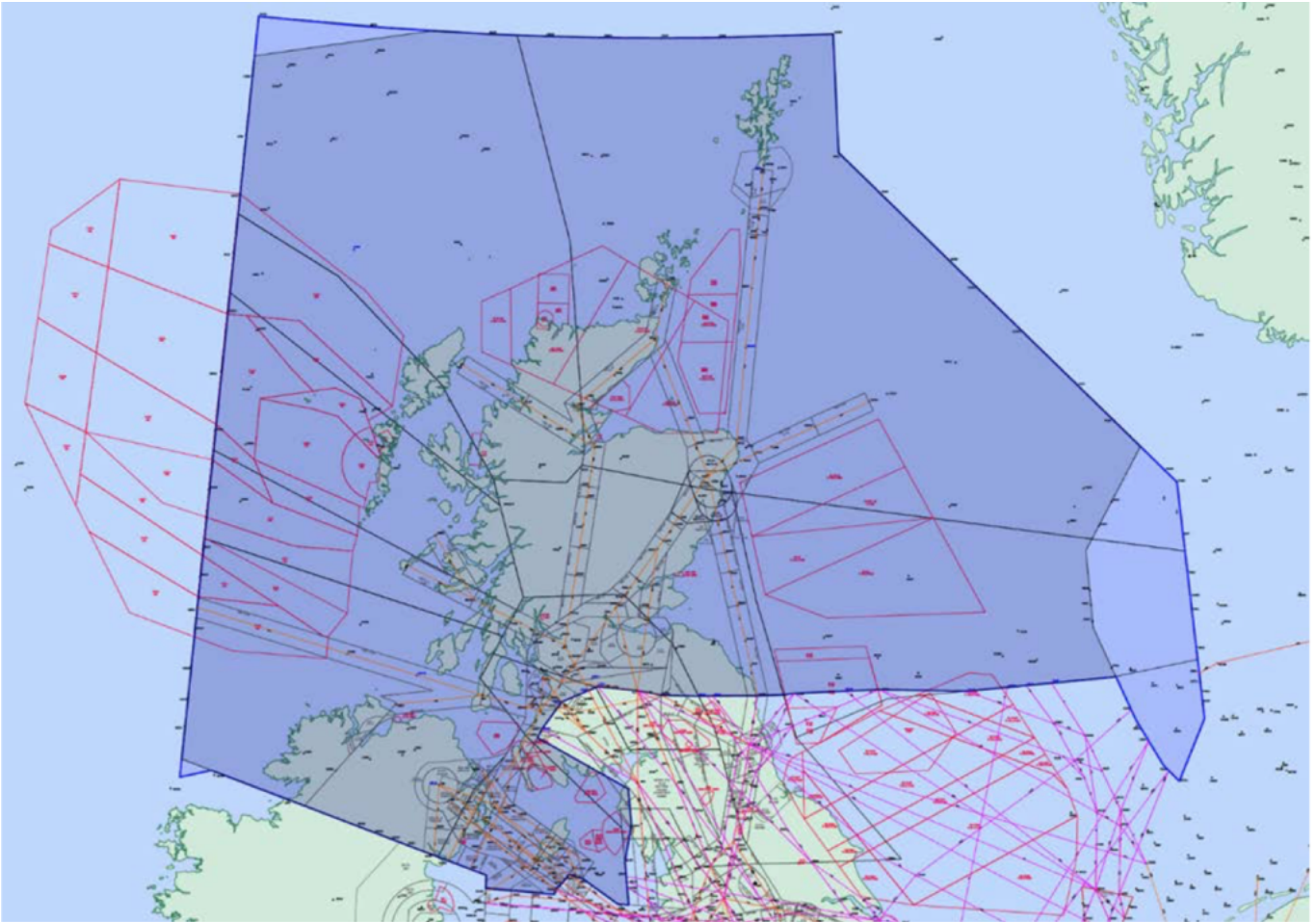
Reduction of up to
30
hours flying time per day for aircraft using this airspace

Benefits enabled through collaboration with the Borealis Alliance. Statistics sourced from airspace change proposal analytics and Eurocontrol forecasts.

And their nice graphic too.

Where is this airspace?

It is in northern UK and **consists of 150,000 nm² of airspace** over the North Sea, Scotland, North Atlantic, Northern Ireland and a small portion of northern England – so within the Scottish UIR, London UIR and Shanwick OCA, and affecting the route network over some international waters. There will also be FRA in the London UIR within the region known as the PEMAK Triangle and TAKAS box.



Not the best picture, but you get the idea.

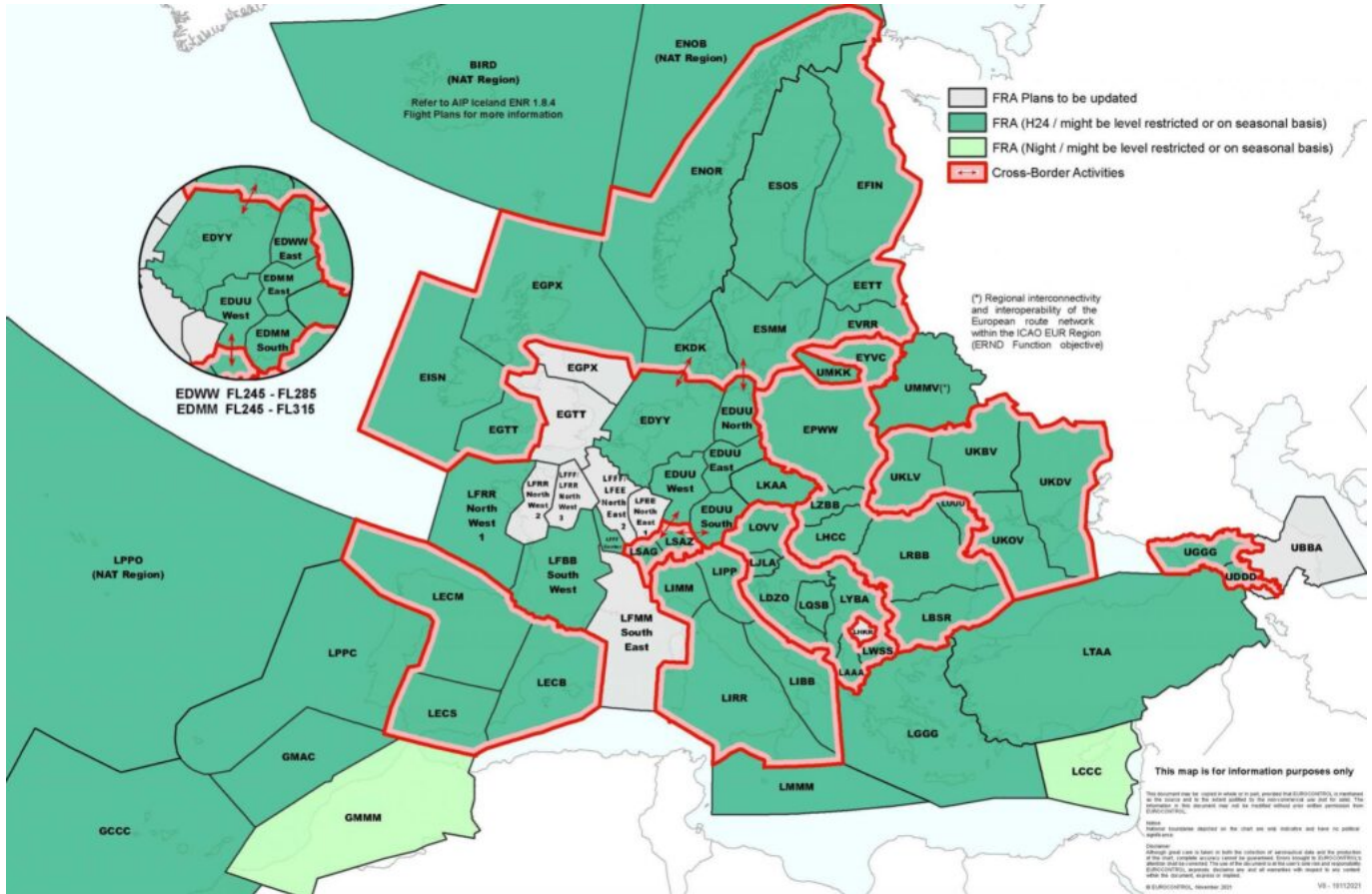
This airspace accommodates up to **2000 flights a day** and supports around **80% of transatlantic traffic**.

The Free Route Airspace is **H24** and between **FL255-FL660**.

You can find the full info on the relevant airspace here, including dimensions and how it links with other high seas airspace.

Where else is this happening?

You might want to take a look at the Free Route Airspace implementation taking place across **the rest of Europe** as well. This has been going on a little longer, and large areas of Europe already have it implemented.



There is more than you think.

They are also working on cross-border activities which may create even more direct routings in the future.

Norway's AIC A03/21 published Oct 2021 provides info on the operations between the FRA in the Finland FIR, Copenhagen FIR, Polaris FIR, Riga FIR, Sweden FIR, Tallinn FIR (known as the **NEFAB FRA** meaning the North European Functional Airspace Block) and, of course, the Scottish FIR. **These are known as the "Borealis Alliance"**. (Here's a link to the Borealis Alliance Presentation, if you want to find out more about the background and current stages of the overall project.)

Norway's AIC tells us that flights routing through these airspaces will be eligible for Free Airspace Routings if they have a **planned trajectory within the following vertical limits:**

- DK-SE FAB FRA FL285-FL660
- NEFAB FRA FL095-FL660 (EETT/EFIN FIR FL095-FL660, EVRR FIR FL095-FL660, ENOR FIR FL135-FL660)
- EGPX FRA (FL255-FL660)

Additionally, if you are routing to/from the UK FRA to the NEFAB FRA then you are going to have to **file some intermediary waypoints** because they have a lack of radar cover there. These Entry/Exit points are ATNAK, ALOTI, BEREPA, GUNPA, KLONN, NINUN, ORVIK, PEPIN, PENUN, RIGVU.

There is additional information for flight planning in there so we recommend reading it through, and heading to the relevant ANSP for any of those countries if more info is needed.

Anything else to know?

While cross border operations are in place for much of it, the interface between Shanwick OAC and Reykjavik OAC will not change.