FABEC

SUSTAINABLE BENEFITS FOR THE EUROPEAN SKY

THE SOUTH-EAST PROJECT

Making the Single European Sky a success for all of us

In 2004, the European States and the European Commission agreed to establish a Single European Sky (SES). The goal is to make the use of European airspace even safer, more environmentally sustainable and more efficient. On the basis of this legislation, nine functional airspace blocks (FAB) were created in Europe. The aim is to control flights according to traffic flows, and not according to national borders.

The Functional Airspace Block Europe Central (FABEC) covers the airspace of Belgium, France, Germany, Luxembourg, the Netherlands and Switzerland and lies at the heart of Europe. FABEC contains some of Europe's largest hubs (Paris, Frankfurt, Amsterdam, Munich) and has one of the highest volumes of air traffic in the world.

In December 2010, the Ministers of Transport and high-level military representatives from the six countries signed the FABEC Treaty which entered into force on 1 June 2013. All FABEC partners are contributing to the ambitious goals of the Single European Sky, which include:

- increasing safety
- lowering levels of emissions by introducing more direct and efficient routings
- providing more capacity ensuring punctual arrivals for the passengers
- improving military mission effectiveness.

BENEFITS

- Optimizing traffic flows by maintaining high safety levels
- Reducing the routes length by up to 1,500,000 kilometres per year
- Decreasing fuel consumption by up to 5,000 tonnes per year
- Lowering fuel engine emissions by up to 15,000 tonnes of CO_2 per year

(Based on Eurocontrol data)

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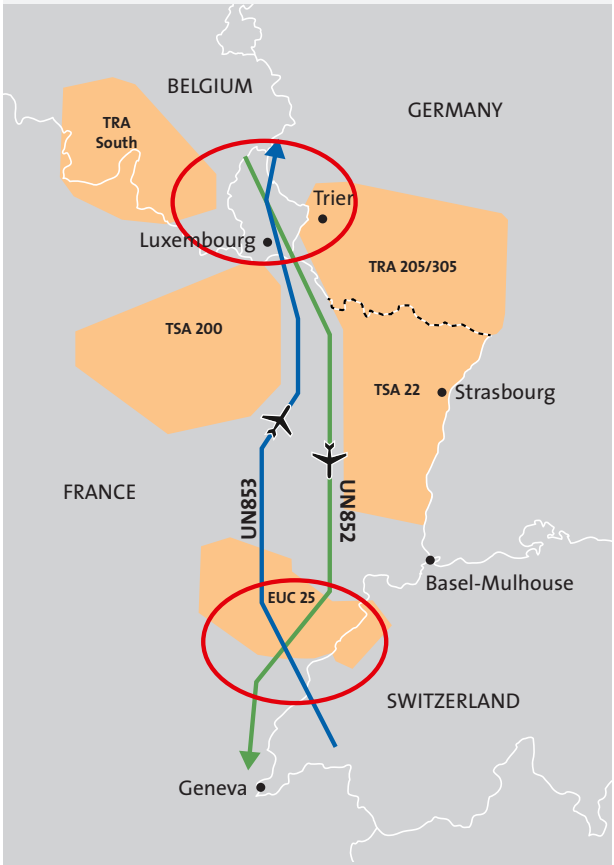
FABEC AT A GLANCE

- 6 States
- 7 civil and 3 military air navigation service providers
- Airspace of 1.7 million square kilometres
- 5.5 million flights per year

The South-East Project: a successful cross-border airspace design for all airspace users

The South-East Project is a central element of the FABEC airspace strategy. Its main goals are to improve safety and the flow of traffic from the north to the south and vice versa by removing two crossing-points and by reshaping military cross-border airspace, to improve flight efficiency and thus reduce the environmental footprint thanks to shortened routes and to improve military mission effectiveness. **The implementation of this new air route network in upper airspace of FABEC is scheduled for 31 March 2016.**

Current situation



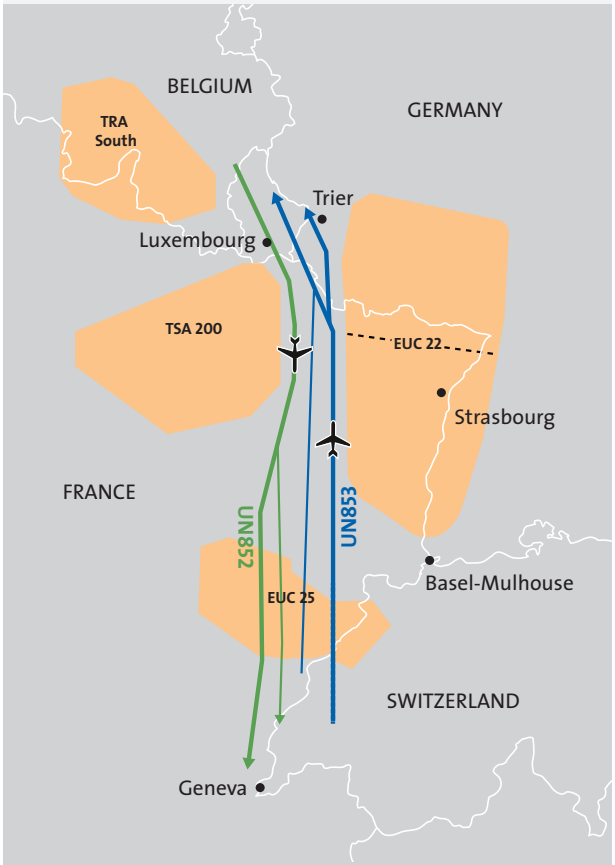
UN852 / UN853: civil routes in upper airspace

Military training areas

EUC 25: Franco-Swiss military cross-border training area
TRA South: Franco-Belgian military cross-border training area
TSA200/TSA22: French military training area
TRA 205/305: German military training area

Today, in this area at the heart of Europe, 1,000 flights a day travel on two airways through a narrow corridor in upper airspace and these busy airways intersect twice. This complex structure is inefficient in terms of capacity and safety.

The South-East Project



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FABEC has developed a new airspace based on **four measures** which will be implemented simultaneously by civil air navigation service providers (ANA Luxembourg, Belgocontrol, DFS, DSNA, the Maastricht control centre of Eurocontrol, skyguide) and military authorities (France, Germany, Switzerland).
To test the new airspace procedures, two large-scale simulations were conducted at Eurocontrol/Bretigny involving several hundreds of air traffic controllers.

The four measures to be implemented in a complex international context

Measure 1

A more efficient civil air route network at high altitude

New parallel and duplicate civil routes are established at high altitude. Two crossings are eliminated.
The implementation of this cross-border airspace design project requires changing procedures, technical specifications and charts at 12 civil and military control centres.

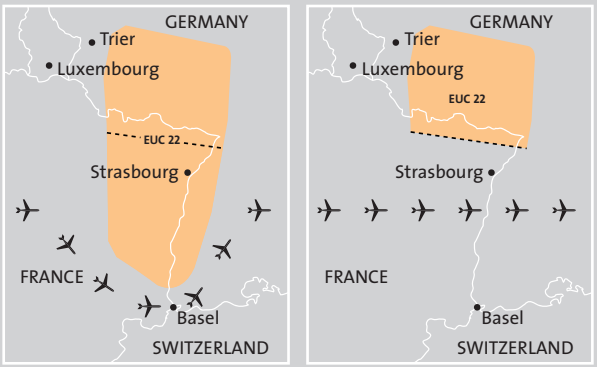
Measure 2

Creation of the first Franco-German military training area

To widen the civil corridor, German and French military training airspaces are reshaped: For the first time in European history, a joint Franco-German cross-border training area will be created, called EUC 22. In its initial phase starting in March 2016, the new airspace, divided in northern and southern parts, will still be operated separately by the German and French air forces.
In the second step starting in March 2018, the entire airspace will be managed so that the German or French air forces can operate it in whatever configuration is required.
It is not planned to increase the number of training flights, but to optimise the airspace usage thanks to a highly efficient coordination.

Measure 3

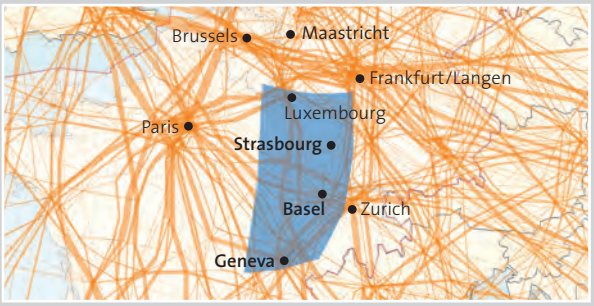
New innovative military training with a Flexible Use of Airspace



The military airspace can be divided into modules and booked by either of the two air forces. If the military do not require the area for training purposes, the airspace may be used by civil aviation.
This is generally the case at weekends and on public holidays.

Measure 4

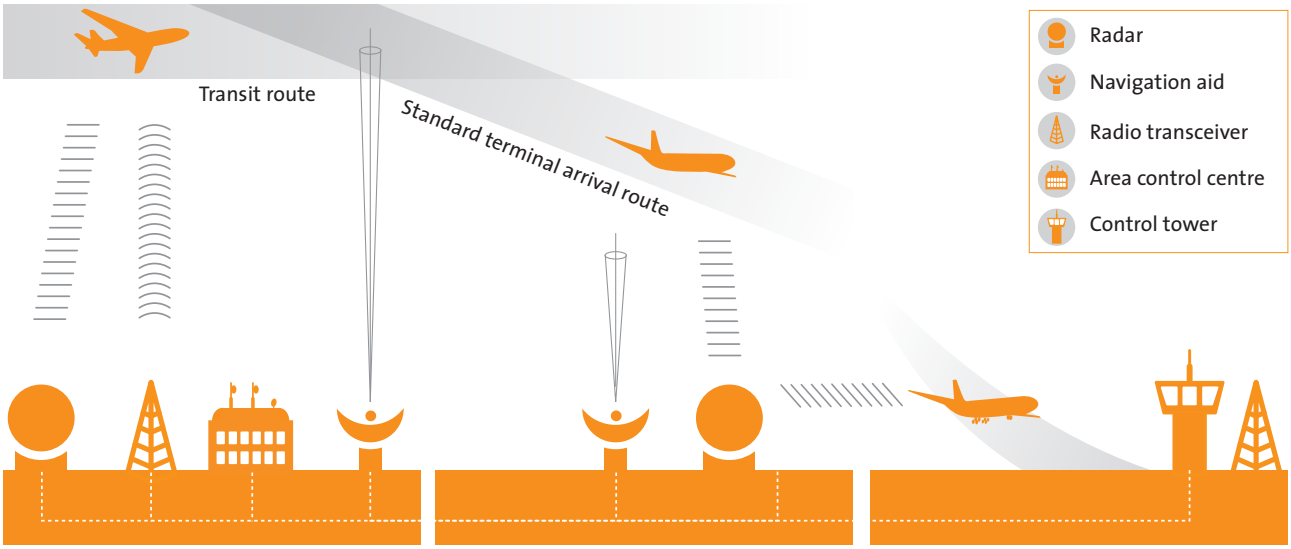
Adapted connections from the upper network to the airports of Geneva, Basel and Strasbourg



FABEC strives to maintain a dynamic balance between safety, capacity, sustainability and cost effectiveness in its service provision. France and Switzerland conducted air traffic impact studies on these three airports to ensure that flights will be handled in an environmentally-friendly manner. Elected representatives and associations of local residents will be jointly informed by France and Switzerland.

Safety in the air: how air navigation service provision functions

The sky above Europe is covered by a dense route network. In FABEC airspace alone, air traffic controllers handle 15,000 flights a day, safely and as sustainably as possible. In a total of 14 radar control centres, they closely monitor each single flight, around the clock, seven days a week and 365 days a year. Depending on the phase of flight, there are three types of air traffic control, all with one absolute priority: flight safety.



En-route controllers: They handle aircraft above an altitude of 5,000 meters based on radar data. Aircraft may be in cruising flight following air routes, or be starting their descent to the destination airport or finishing their climb phase.

Approach controllers: During the approach phase, they handle aircraft coming in from various directions. They guide them to their final descent paths by lining them up according to their performance to optimise the use of the runways in an environmental friendly manner.

Aerodrome controllers: From the control tower, they have visual contact with aircraft and any other traffic at the airport. They are responsible for operations on the runways and aircraft flying within the vicinity of the airport.

Before implementing the South-East Project, around 800 air traffic controllers will have to be trained to ensure the safe and efficient implementation in March 2016.

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