

Roadmap to Free Route Airspace Reality in Africa



What is the Free Route Airspace (FRA)?

A Free Route Airspace (FRA) is a specified airspace within which airlines may freely plan a route between a defined entry point and a defined exit point, with the possibility to route via intermediate (published or unpublished) waypoints, without reference to the Air Traffic Service (ATS) route network, subject to airspace availability. Within this airspace, flights remain subject to air traffic control.

Why the FRA?

The full benefits of efficiency of FRA can only be achieved if it is deployed over large areas and; appropriated measures are taken to reduce the associated safety risks.

States/ANSPs can overcome the challenges in Air Traffic Management efficiency;

Removal of constraints imposed by fixed route structure;

Optimized airspace capacity;

Flight efficiency and flexibility;

Environmental protection.

*"Implementing the **FRA** will annually bring significant cost savings to airlines, shorter travel times to passengers and less **CO₂ emissions** into the environment. The trials, which started in **November 2023**, will continue to provide critical data to accelerate the **FRA implementation** in the entire **African Airspace**, improving air navigation efficiency."
"Mr. Abdérahmane Berthé - **AFRAA Secretary General**.*



FRA in other regions

Regions that have developed and successfully implemented FRA concept of operations have demonstrated that there are clear benefits to airspace users as well as improvement of airspace utilization.

Lisbon Flight Information Region FIR showed the way in 2009

The European airspace is busy! Yet, Portugal pioneered FRA implementation by removing air traffic service routes in the country's airspace and plotting entry-exit points around it.

Benefits of FRA in Lisbon FIR in 2009

Reduction of 1.300.000NM	Fuel Savings 8.783 Tones	Savings over 12 million Euros	Environmental preservation 27.000 Tones CO ₂
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Storyline for FRA in Africa to become a reality

2024

- Coordination for approvals of relevant ANSPs for more trial routes in year 2024 towards making the FRA a reality.
- **Q1 2024, Ethiopian Airlines and Kenya Airways** operated 9 and 11 trial flights, respectively. From 24 to 30 April 2024, they performed 14 and 6 trial flights, respectively.
- **Outcome of trials:** Ethiopian Airlines and Kenya Airways have avoided burning **1,258 KGS of fuel** and prevented the emission of **3,975 KGS of CO₂** per day.

Yearly projections Ethiopian Airlines and Kenya Airways:

- **459 Tonnes** of fuel savings.
- prevention of the emission of **1,450 Tonnes of CO₂**.
- saving **USD 856,290** only on the retained trial-city pairs.

2023

- On 02 November – FRA Trial kick-off workshop in Addis Ababa by CANSO, AFRAA, IATA, ICAO, and Air Navigation Service Providers (ANSPs), sponsored by AFREXIMBANK. Approvals secured for two trial flights
- Trials for the free routing flights becomes a reality – Flights ET935 and KQ 508 operate safely on 02 November 2023 outside the existing routes directly from Addis Ababa to Abidjan and Nairobi to Accra, respectively.

2022

- The first African Aviation Sustainability Laboratory to revamp Air Transport in Africa is hosted by AFRAA, from 27 June to 1 July 2022, at AFRAA Headquarters in Nairobi, Kenya.
- The LAB identified five projects that generate air traffic or enhance regional air service affordability. The Free Routing Airspace trials project is one of the five retained to accelerate the implementation of FRA in Africa.

2019

- African region agreed to plan and implement a Free Route Area over Africa. The progress was very slow.
- AFI Planning and Implementation Regional Group (APIRG) conclusions passed at Accra in 2019 and the FRA Project Management Team commences active work towards FRA implementation.

Volunteer Airlines:

1. Ethiopian Airlines
2. Kenya Airways
3. EgyptAir
4. Rwandair
5. Royal Air Maroc
6. Airlink
7. Non-African Carrier – Air Arabia

The trials demonstrate the operationalization of the user-preferred routes and the data provision supporting the step-by-step implementation of the FRA.

Next steps

The launch of the three-month, six-month, and twelve-month trials with the extension of the number of city pairs and the increased number of participating airlines.

The intensive trials will allow the LAB Task Group 3 to collect significant trial data.

In October 2024, the LAB Task Group 3 will share the trial data with the Continental FRA Project Management Team in a joint workshop hosted by AFRAA in Nairobi.

The trial data analysis will showcase the FRA States and non-FRA States. Hence, the October 2024 workshop will set a roadmap towards implementing FRA in African Airspace.

Such a roadmap will be tabled before APIRG before the end of the year for an FRA implementation conclusion.

