DCT/FRA Fast Track Opportunities

Programmatic Continuous Improvement

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Why now?


What enabled MIA-BOG trial success?
Yes if…
Momentum
DCT/FRA gaining traction in the region
Unknown vs the known
ANSPs/FIRS gaining experience and familiarity with the concept …
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Reframing Implementation Strategies of DCT/UPR/FRA (Trials)

Reach conclusions sooner (safely)

- 93 flights in 104 days or 87 – 141 in one month
- How many operations (not days) does it take to assess “viability & benefit”?

Predicting Demand/Complexity of DCT/FRA Routes

Explore ways to predict demand/ complexity of the trial DCT/FRA routes

- Modeling (requires operator participation)
- Tools such as TFMS ("FEA") flow modeling
- Other methods?

Reframing Implementation Strategies of DCT/UPR/FRA (Trials)

In the absence of modeling

Identifying point to point vs operator specific city pairs:

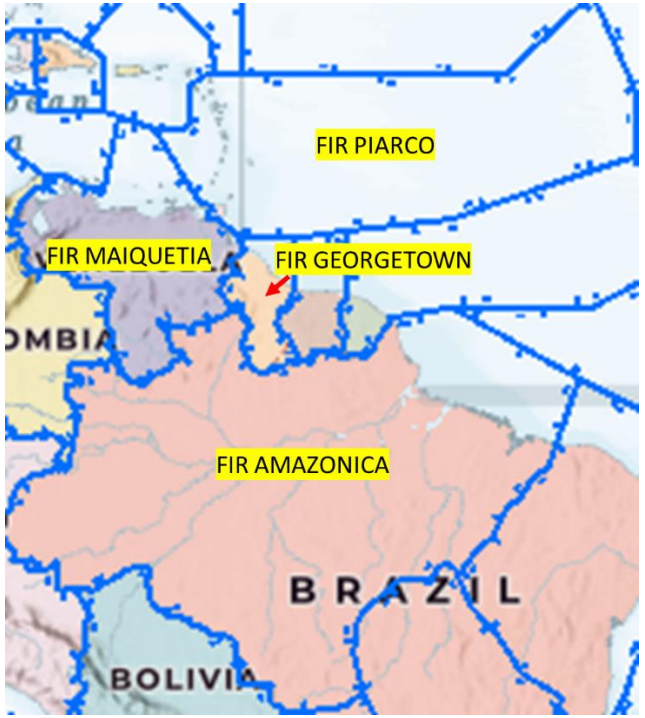
- Provides a larger sample size to the trial objectives
- Reaches conclusions sooner

Volunteers to implement SDR's trials are welcomed. It will be important to move forward to SDR corridors.

Reframing Implementation Strategies of DCT/UPR/FRA (Trials)

Example:

Use the already implemented SDR in Brazil, Venezuela and Guyana and include also Trinidad y Tobago and Puerto Rico, to have a South America to US corridor



Reframing Implementation Strategies of DCT/UPR/FRA (Trials)

Clearly identify objectives of trials in measurable metrics to determine length of the trial. Once reached…act.

- Impact to adjacent ANSPs?
- Did it overload a sector (flights/hr)?
- Did you lose predictability?
- Did it increase conflicts?
- Technical issues?

Consider present day sectorization in evaluating effectiveness.

- i.e., Are sectors combined laterally or vertically?

Increase Participation

AIPs? AIC? NOTAMS? Which is the most effective during trials:

- A generic publication on how to file UPRs and SDRs should be published
- Develop a more efficient and consistent publication process
- The UPRs should be inserted in the ANSPs website, which would expedite the update

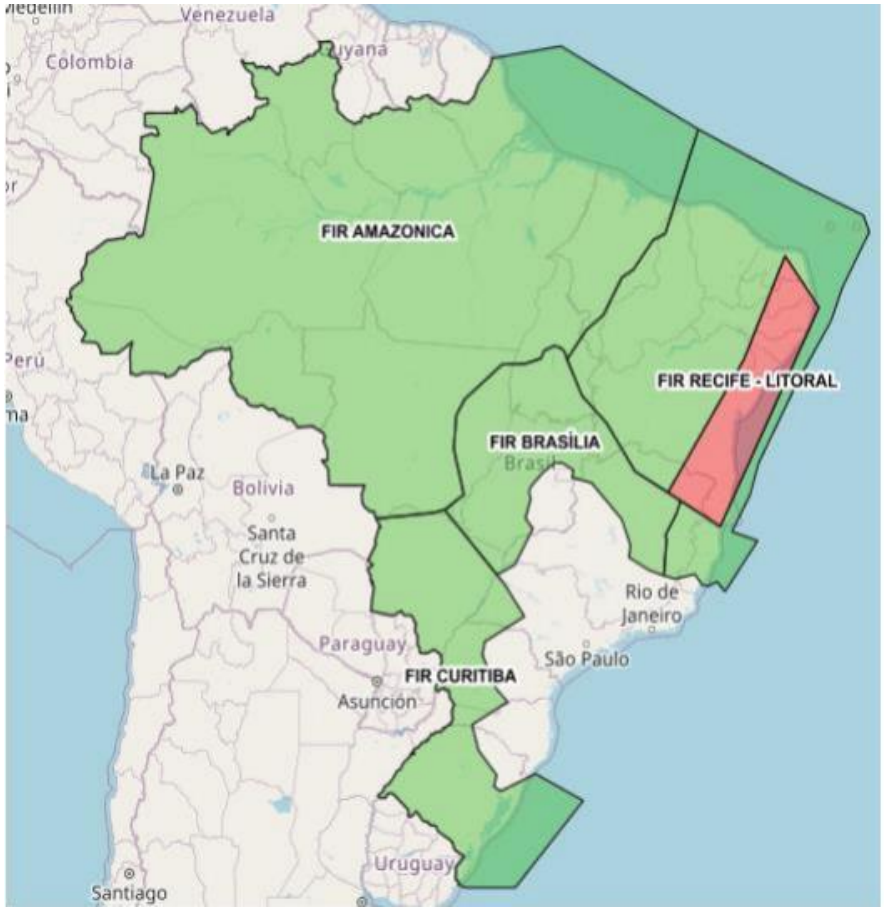
Agreement with operators to file requested UPR, whether it is efficient or inefficient in order to shorten the data collection period.

- This requires a coordinated effort on the airline side

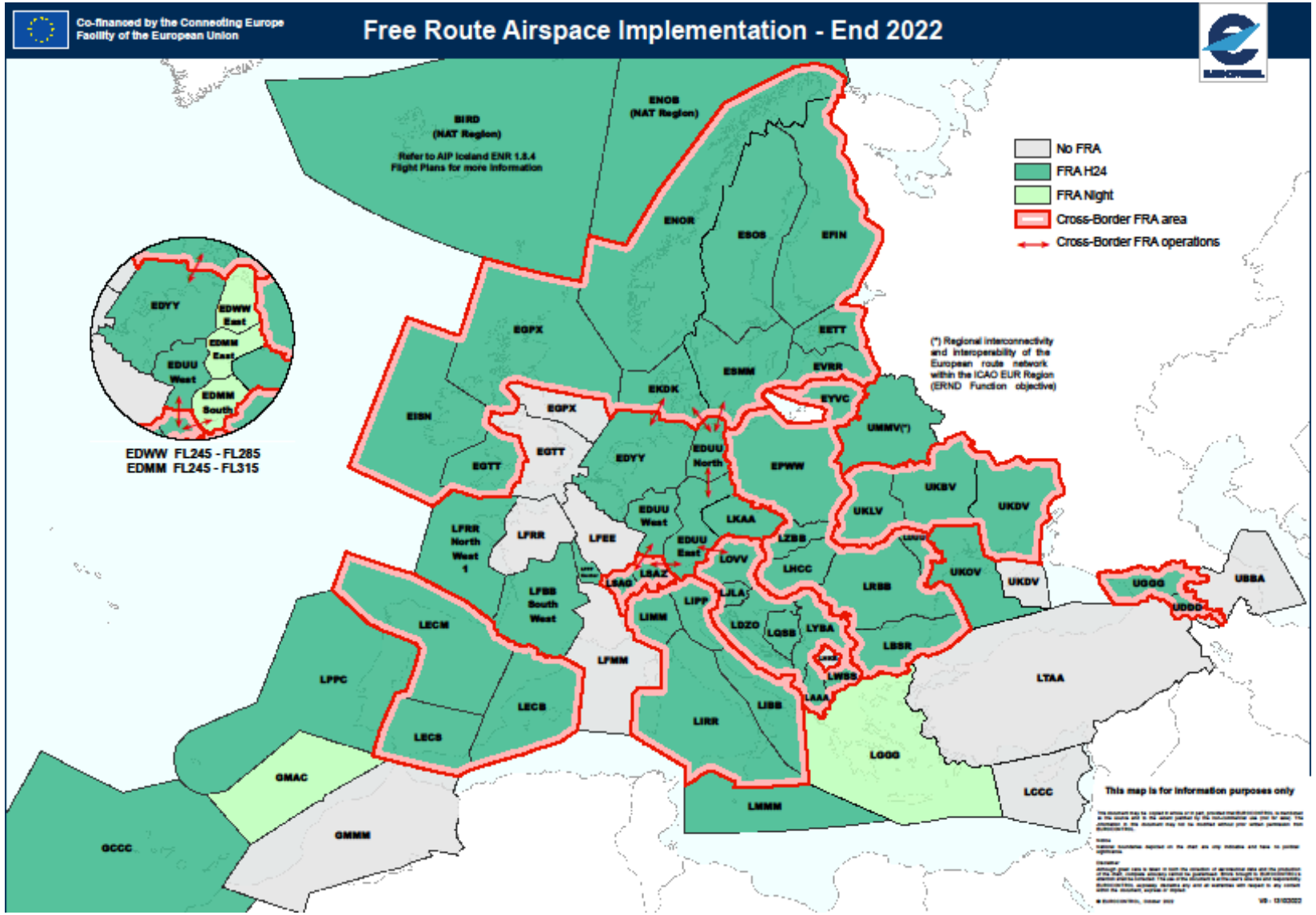
FRA Brazil

The Brazilian DCT Routing Airspace (green + red)

- The red portion in the Recife FIR is being used just at night.
- In the non-DCT Routing Airspace, Brazil applies a “kind” of UPRs previously coordinated with Brazilian ATFM Center



Current FRA Europe



ATC/ATFM Operational Optimization Practices

Implementation of basic ATFM procedures to optimize separation in the vicinities of the airports.

For single runway airports:

- Typically, ATC applies a standard separation between successive arrivals in a single runway airport, considering the need of having enough spacing to depart an aircraft, independently if there is or not an aircraft ready to depart.
- It is important also to consider a correct balance between arrival and departures flows.

Example: During arrival peak hours, introduce a separation of 3 NM between 1st and 2nd arrivals and then use 5+NM between 2nd and 3rd arrivals to allow a departure in between.

ATC/ATFM Operational Optimization Practices

Implementation of basic ATFM procedures to optimize separation in the vicinities of the airports.

For 2+ runway airports:

- It is important to use the runways in accordance with the traffic flow.

Example: During arrival peak hours, it would be suitable to use both runways for arrivals, using independent approaches under IMC (depending on the separation between runways and other requirements) or VMC, considering one of the runways being used in a mixed mode (departures and arrivals) to support the few departures during the arrival peak hours.

Thank You!