

Combined ASIOACG and INSPIRE Working Group Meeting, 2013
Dubai, UAE, 29th to 30th May2013

Agenda Item 3: UPR trials and establishment of ASIO UPR Zone

Boundary Fixes and Airways in ASIO UPR Airspace

(Presented by IATA)

SUMMARY

This Working Paper seeks ASIOACG stakeholder support in moving towards an Airspace structure based on “Off Airway” operations and the optimization of Boundary crossing points. The proposed Boundary crossing points are RNP separated Latitude / Longitude points rather than the existing and limiting waypoint boundary crossing points. This paper relates to –

Relevant Strategic Objective

C: Environmental Protection and Sustainable Development of Air Transport – Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment

Global Plan Initiatives:

- GPI-1 Flexible use of airspace
- GPI-5 RNAV and RNP (Performance-based navigation)
- GPI-7 Dynamic and flexible ATS route management
- GPI-8 Collaborative airspace design and management

ASBU

- B0-10 Improved Operations through Enhanced En-route Trajectories
- B1-10 Improved Operations through Optimized ATS Routing

1. INTRODUCTION

1.1 At the ICAO ANC12, the ASBU program was accepted as the common standard for next generation global ATM system upgrades. In this ASBU concept, the Block B1-10 - Improved Operations through Optimized ATS Routing, shows that significant benefits arise when dynamic routes can flow across flight information region (FIR) boundaries rather than restricting traffic to cross boundaries at fixed predefined points.

1.2 In the South Atlantic AORRA airspace, all airlines plan their route based on UPR without any restrictive published fixes and the requirement of filing the position at boundary crossings . Published airways have been retained for Contingency planning only and are only

available when activated by NOTAM. This allows operators to optimize the UPR track without any influence of fixed boundary waypoints or airways in the AORRA.

1.3 In the Arabian Sea and Indian Ocean region, Free Route Airspace and a UPR zone have already been introduced. However the airway structure is still in place and plannable in the same airspace. Male, Colombo, and Melbourne FIR boundary waypoints are aligned on degree-based separation for RNP10 operations; however some of the airways cross between these whole degree-based waypoints, and inhibits the use of some these whole degree-based waypoints. An example is on the Male / Colombo FIR boundary where Waypoint SUNAN on Airway L894 makes Waypoints KASVO unusable. As a result, UPR planning on a given day may be restricted

1.4 Some FIRs have the requirement to cross FIR boundaries at published 5LNC fixes but do not publish sufficient fixes based on whole Degree or Half degrees co-ordinates. This also limits the opportunity to plan fully-optimized UPRs.

1.5 Male and the Southwest part of Colombo FIR are already recognized as Free Route Airspace. Melbourne and Mauritius FIRs are UPR Airspaces. All aircraft may plan their routes based on the Free Route and UPR requirement in these airspaces. AWYs are not required.

1.6 To maximize UPR benefits, FIR boundary crossings on whole degree or half degree co-ordinates are the most efficient as they give the greatest flexibility. In limiting the use of Airways for contingency use only it will be possible to implement these half degree crossings

1.7 The currently published FIR boundary crossing waypoint requirements limits the flexibility of dynamic routes. India already allows operator to plan UPR without published Fix filing for crossing boundary in their airspace.. This gives operators the opportunity to optimize UPR routes and to reduce traffic concentration on published boundary Fixes and is the intention of ASBU B1-10 Improved Operations through Optimized ATS Routing.

2. **DISCUSSION**

2.1 IATA member airlines support:

- The retention of the existing Airway structure to be used only during Contingency situation in these FIRS.
- Boundary crossing procedures to be based on RNP 10 and RNP4 separation standards (whole degrees and half degrees as applicable) without limitations from the proposed contingency Airway structure.
- Expansion of the currently limited UPR zone.
- Boundary crossing without filing the points at next stage.

3. ACTION BY THE MEETING

3.1 Agree to implement the concept of contingency Airway planning (only to be used when activated by NOTAM)y, as is already practiced in other Random Routing environments.

3.2 Discuss the extension of contingency Airway planning area to all ASIO UPR zone from Male, Colombo, Mauritius and Melbourne.

3.3 Agree on the standardization of the FIR boundary crossing requirements in the whole Arabian Sea & Indian Ocean airspace.
