



International Civil Aviation Organization

**The Fourth Meeting of the Bay of Bengal Reduced Horizontal Separation
Implementation Task Force (BOB-RHS/TF/4)**

Bangkok, Thailand, 18 to 22 October 2010

Agenda Item 3: Operational Issues

Route Enhancements

(Presented by IATA)

SUMMARY

This paper draws the meetings attention to a number of route enhancements that will supplement the implementation of reduced longitudinal separation to provide increased efficiencies

1. INTRODUCTION

- 1.1 The implementation of 50nm longitudinal separations across the BoB / A/S will provide an increase in capacity at a time when traffic growth is again starting to boom.
- 1.2 However reduced separations only provide a partial solution to increasing capacity and efficiency. Route enhancements provide another part of the solution with the added ability of potentially reducing track distances by straightening flight paths.
- 1.3 Unfortunately due resourcing, ICAO was unable to conduct the BBACG meeting this year leaving the BOB-RHS/TF as the only sub region specific ICAO meeting focused on this area.

2. DISCUSSION

- 2.1 While some significant route enhancements have been delivered, a number of these are restricted in their operation either by times or altitudes. While recognising that restrictions can be necessary to implement routes, sometimes the restrictions can be such that the benefit of the route is negated.
- 2.2 Two key restrictions on the route M875 including GUGAL-JHANG that could provide some relief if amended are:
 - Altitude restriction F280 route (crossing FIR boundary)
 - Time restriction
- 2.3 This route is used by a number of long haul aircraft (e.g. VIDP-KJFK) which find it difficult to make the altitude as published. Also the time restriction doesn't completely capture the flow of traffic heading through Kabul FIR that necessitated the BOBCAT arrangements. A lower altitude of F240 for initial boundary crossing would accommodate these long haul flights, even if applied with certain restrictions (e.g. traffic operating > xx hours). The actual aircraft cruise altitudes will remain unchanged.

- 2.4 Furthermore the time restriction of 2230 UTC is such that aircraft towards the end of the period of the north-west flow can miss the opportunity to utilise this route. The route is already available until 2359 UTC through Kabul and it is anticipated that a similar extension in timings for the southern portion of the route would be sufficient in the short term. Note the time restriction finishes at exit of Kabul to the north.
- 2.5 In addition, several proposed route enhancements that have been under consideration for some time could provide further capacity increases in the short term for traffic on this flow.
- 2.6 These are:
- SAMAR – LAJAK
 - PRA - SERKA
- 2.7 Both routes will help provide additional capacity while also potentially relieving some bunching type issues on the current primary routes.
- 2.8 The implementation of SAMAR – LAJAK not only provides a link from L509 but potentially reduces track distance by 66nm with an estimated reduction in CO2 emissions of 46,000,000kg.
- 2.9 The route Pratapgarh (PRA) – SERKA (included as part of the ICAO Route Catalogue as IND 7) provides a similar linkage between N877 and UL333.
- 2.10 The portion of UL333 transiting Kabul FIR is least utilised crossing but the current routing effectively incurs a 45nm “penalty” dogleg from PRA.
- 2.11 The availability of more direct routing to SERKA would provide a viable alternative to traffic operating between South/ South East Asia and Europe, potentially reducing some of the traffic loading on the other routes.
- 2.12 As with similar proposals such as GUGAL - JHANG, implementation of routes with restrictions in the short term is acceptable provided they meet the major traffic needs. In the case of PRA – SERKA, the primary benefit would be derived from westbound traffic during the BOBCAT hours.
- 2.13 While Military areas are a restriction on the direct route, alternatives are also available. A realignment of N877 from NNP via TASOP direct SERKA provides a nearly 30nm reduction over the current routing and avoids the danger area. While 17 nm further than the direct track, it may be easier to facilitate in the short term.



2.14 Recognising that this meeting is the only sub regional focused ICAO forum undertaken in 2010, IATA requests States consider each of these proposals as appropriate.

2.15 States are requested to provide alternative solutions/ ideas where appropriate

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- Recognise the benefits of the proposals
- Support the individual States to implement the proposed changes
- Provide alternative/ other suggestions that promote increased efficiencies

3.2 Applicable States are requested to coordinate as required to implement the following as soon as possible:

- Extend the hours of availability of M875 to 2359 UTC
- Lower the altitude limitation for crossing FIR bny to F240 (Delhi/ Lahore)
- Implement new route SAMAR – LAJAK
- Implement link between N877 and UL333,
 - priority PRA – SERKA
 - alternative NNP – TASOP – SERKA
