



International Civil Aviation Organization

**The Twenty-First Meeting of the APANPIRG ATM/AIS/SAR Sub-Group  
(ATM/AIS/SAR/SG/21)**

Bangkok, Thailand, 27 June – 01 July 2011

**Agenda Item 5: Review of other relevant meetings**

**IMPLEMENTATION OF PHASE 1 OF BOB- RHS**

(Presented by India)

**SUMMARY**

This paper presents the preparedness of India for implementation of 50 NM RHS on ATS routes L510, P628, N571 and P762 in phase I.

This paper relates to –

**Strategic Objectives:**

A: *Safety – Enhance global civil aviation safety*

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-5 RNAV and RNP (Performance-based navigation)

GPI-6 Air traffic flow management

GPI-7 Dynamic and flexible ATS route management

GPI-8 Collaborative airspace design and management

**1. INTRODUCTION:**

- 1.1. The Bay of Bengal ATS Coordination Group (BBACG) in its twentieth meeting held in January 2009 decided to introduce widespread 50NM Longitudinal Separation in the Bay of Bengal, Arabian Sea and Indian Ocean region and established the Reduced Horizontal Separation Task Force (BOB-RHS/TF) to support its implementation. The BOB-RHS Task Force in its various meetings through 2009 and 2010 decided to undertake the implementation in a phased manner.
- 1.2. With the introduction FANS1/A concept and the increasing number of aircraft with suitable on board equipment for RNP10 operations, BBACG was of the view that airspace capacity can be better enhanced by reducing the longitudinal separation from the present 80NM to 50NM.

**2. DISCUSSION:**

- 2.1 The safety assessment for implementation of 50 NM RHS was carried out by India and the lateral collision risk and the longitudinal collision risk were well below the TLS of  $5 \times 10^{-9}$  fatal accidents per flight hour. This was noted during the RASMAG/14 meeting and it was concluded that the safety assessment supported the continued use of 50 NM lateral separation and also the implementation of 50 NM longitudinal separation on L510, N571, P628 and P762

- 2.2 Based on the Safety Assessments conducted by both India and Singapore, the 5<sup>th</sup> meeting of the BOB-RHS Task Force in February 2011 decided to implement 50NM Longitudinal Separation along four Routes, L510, N571, P628 and P762 from AIRAC date 30<sup>th</sup> June, 2011 as part of Phase 1.
- 2.3. Qualitative Safety assessment has been carried out by all Area Control Centres for phase 1 implementation of reduced longitudinal separation.
- 2.4 India has issued AIP Supplement 21/2011 dated 07 April 2011 for the reduced horizontal plane separation of 50Nm longitudinal along four international routes in Phase 1 from AIRAC date 30<sup>th</sup> June 2011.
- 2.5 Controllers' training for RHS has been completed for implementation of 50 NM RHS. Air Traffic Controllers from four ACCs have visited Singapore to get themselves familiarized with the applications of 50NM RHS. The support extended by CAAS, Singapore is highly appreciated.
- 2.6 Letter of agreements (LOAs) have been signed between the adjoining Area Control Centres (ACCs) within India for the implementation of reduced longitudinal separation of 50NM.
- 2.7 Letter of Agreements (LOA) has been signed by Myanmar and Sri Lanka. Karachi has issued AIP Supplement for implementation of RHS w.e.f. 30<sup>th</sup> June, 2011. However, the signed LOAs from Karachi and Muscat are awaited.
- 2.8 Although Malaysia has informed that 50 NM RHS in Kuala Lumpur FIR will be implemented only after the ADS/CPDLC issues are resolved, India is committed to implement 50 NM RHS on P762 (bi-directional) and N571 (Eastbound between PARAR and IDASO, Westbound between IGOGU and PARAR), P628 (Westbound between IGREX and VIKIT) in the phase 1. The ATS route L510 may be considered in Phase 2 after the ADS/CPDLS is operational in Kuala Lumpur FIR. A G series NOTAM is being taken to amend the AIP supplement 21/2011.

### **3. ACTION BY THE MEETING.**

The meeting is invited to

- a) note India's preparedness in implementation of 50 NM RHS in first phase.
- b) urge the concerned states to expedite the signing of LOAs.
- c) urge airlines to consider equipping airframes with ADS/CPDLC for deriving maximum benefits.

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