



International Civil Aviation Organization

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The Second Meeting of the South Asia, Indian Ocean and Southeast Asia ATM Coordination Group (SAIOSEACG/2)

Bangkok, Thailand, 20 – 24 March 2023

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### Agenda Item 3: Review of Current Operations and Problem Areas

#### THE ESTABLISHMENT OF THE BAY OF BENGAL ROUTE NETWORK SMALL WORKING GROUP

(Presented by the Chairperson of BOBTFRG)

##### SUMMARY

This paper presents the objectives of the Bay of Bengal Route Network Small Working Group and elaborates on the preparation work to devise a holistic plan for PBCS implementation in BOB area, aligned with Asia/Pacific Seamless ANS objectives.

## 1. INTRODUCTION

1.1 Based on the urgent need to ensure the most efficient Air Traffic Management in the Bay of Bengal area to support the recovery of the aviation industry after severe financial losses during the COVID-19 pandemic with the benefits that performance-based separation could bring, an initiative of forming the Bay of Bengal Route Network Small Working Group (SWG) was proposed by India and ICAO at the BOBTFRG/4 (VTC, 6 -8 December 2022) and seconded by BOB member States and IATA, subsequently adopted by the meeting as ***Draft Decision BOBTFRG/4-1: Bay of Bengal Route Network Small Working Group***.

1.2 More detailed rationale related to the establishment of this Small Working Group (SWG) is provided in Agenda Item 2, WP03 *Bay of Bengal Traffic Flow Review Group Meeting Outcomes* for this meeting.

1.3 As the SWG has prioritised implementing the most efficient separation standards according to capabilities before congestion in the region grows further, and two group meetings have been held and participated by group members including Bangladesh, India, Indonesia, Malaysia, Myanmar, Pakistan, Thailand, Singapore, Sri Lanka, Thailand, USA, IATA and ICAO.

## 2. DISCUSSION

### The Term of Reference of the SWG

#### 2.1 Objective

- a) identify current CNS/ATM capabilities and CNS/ATM requirements to optimize the airspace to support the most efficient horizontal separations to be utilized, taking into account aircraft approval status and the new CNS/ATM capabilities;
- b) monitor the status of the application of ATC separation minimums in the Bay of Bengal area; and

- c) report outcomes to the review and recommendations to BOBTRG.

## 2.2 *Tasks*

- a) identify constraints and the CNS/ATM capabilities that are needed to implement the performance-based separation for 10 NM longitudinal separation over Category S airspace, and 30 NM longitudinal separation over Category R airspace with support of PBCS requirements;
- b) define the timelines, milestones and dependencies for actions that should be followed;
- c) firm up the mandate date for the ADS-C/CPDLC, RCP240, RSP180 & RNP 4 or 2 which was identified as the key enabler for airspace enhancement;
- d) draft the trial implementation plan for the PBCS over the Bay of Bengal area including the phased detailed action plans, considering below:
  - i. **Phase 1**– 50 NM longitudinal separation to be applied based on the current capability RNAV 10 (RNP 10) available as soon as possible;
  - ii. **Phase 2** – to start transitional period: trial implementation of 30 NM longitudinal / 23 NM lateral separation with harmonized ADS-C/CPDLC equipage mandate for RNP 4 or RNP 2, RCP 240, RSP 180 requirements.
  - iii. **Phase 3** – permanent implementation of 30 NM longitudinal / 23 NM lateral separation not later than **1 March 2026**, subject to post-op evaluation on Phase 2 and ANSP’s readiness to give flexibility or earlier implementation.

## 2.3 *Participation*

Participation of the *BOB Route Network SWG* includes all BOB States, USA and IATA.

### Analysis of the Current Separation being applied in the BOB Area

2.4 Based on the data came from the [ATM/SG/10 WP08](#) *application of ATC Separation Minima*, **Attachment D**, with an update from SWG member States, **Figure 1** was made to illustrate the current separation being applied in the BOB area among the major ATS routes.



2.8 With the understanding of the requirements of applying 30 NM longitudinal separation with RNP 4 specification, **Table 1** collected the ATM/CNS system readiness among the BOB member States.

STATE	FIR	FPL PROCESSING FOR PBCS	ADS-C /CPDLC	RCP_240	RSP_180	POST IMPLEMENTATION MONITORING	REMARK
BANGLADESH	DHAKA						ATM automation system not implemented yet
INDIA	CHENNAI	YES	AVAILABLE	YES	YES	YES	System testing required
	KOLKATA	NO	AVAILABLE	YES	YES	YES	
	MUMBAI	YES	AVAILABLE	YES	YES	NO	System testing required
INDONESIA	JAKARTA	NO	TRIAL	NO	NO	NO	The system is being upgraded. PDC 2025
MALAYSIA	KUALA LUMPUR	NO	AVAILABLE	YES	YES	YES	monitoring only for ADS-C/CPDLC
MYANMAR	YANGON	NO	YES	NO	NO	NO	
SRILANKA	COLOMBO	NO	YES	TESTING	TESTING		System is being upgraded PDC by 2024.
THAILAND	BANGKOK	YES	NO	NO	NO	AVAILABLE	En-route airspace is fully covered with SSR. no plan to prescribe PDC.

**Table 1:** The readiness of ATM/CNS system of BOB States.

Identify Routes to start Trials

2.9 With confirmed the readiness of the Member States and understood the constrains in the BOB area, the preparation meeting had planned for the first step:

- India and Malaysia to start the trial on Route N571 between RNP4/RNP2 approved aircraft on opportunity basis between Kuala Lumpur and Chennai, with a possibility to extend to other routes at a later stage.

Identify the willingness of Airlines with RNP4 and PBCS Approved Fleets to Participate in the Trial.

2.10 At ATM/SG/10 IATA submitted IP/06 *IATA Equipage and Capability Survey*. The paper presented the progress analysis of airline responses to IATA’s Aircraft Equipage and Capability Survey for the IATA Asia-Pacific and North Asia regions (ICAO APAC region) conducted in Quarters 1 and 2 of 2022 and which is ongoing. The survey results showed for the region a large majority of the fleets of airlines that responded reported capability and regulatory approval to operate under PBCS. Most also reported PBN capability of RNP4 or better.

2.11 According to IATA, Airlines welcomed this initiative by BOB States, and confirmations have been received from many airlines operating in the BOB area, including SIA, UAE, QTR, ETD, FIN, FDX, SWR, KLM, DLH, and AFR.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) discuss any relevant matters as appropriate.