

INTERNATIONAL CIVIL AVIATION ORGANIZATION



**REPORT OF THE SEVENTH MEETING OF THE BAY OF BENGAL TRAFFIC
FLOW REVIEW GROUP (BOBTFRG/7)**

VIRTUAL TELECONFERENCE, 09 – 11 DECEMBER 2025

The views expressed in this Report should be taken as those of the
Meeting and not the Organization

Approved by the Meeting
and published by the ICAO Asia and Pacific Office, Bangkok

BOBTFRG/7
Table of Contents

CONTENTS

| | |
|-------------------------------------------------------------------------------------------------------------------------------------|----|
| INTRODUCTION | i |
| Meeting | i |
| Attendance | i |
| Officers and Regional Office | i |
| Opening of the Meeting | i |
| Documentation and Working Language | i |
| Draft Conclusions, Draft Decisions and Decisions of BOBTFRG – Definition | i |
| List of Decisions and Draft Conclusions/Decisions..... | i |
| Report on Agenda Items | 1 |
| Agenda Item 1: Adoption of Agenda..... | 1 |
| Agenda Item 2: Review of the Current and Planned CNS/ATM Capabilities and Identifying Associated Reduced Horizontal Separation..... | 1 |
| Agenda Item 3: Review of the Existing Traffic Flow Route Structures in BOB Airspace and Identifying Priorities..... | 2 |
| Agenda Item 4: Discussion on PBN Routes Development and FLAS/FLOS Optimisation..... | 6 |
| Agenda Item 5: Review of BOBTFRG Task List..... | 9 |
| Agenda Item 6: Decisions/ Recommendations to SAIOSEACG..... | 9 |
| Agenda Item 7: Any Other Business | 10 |
| Agenda Item 8: Date and Venue of the Next Meeting..... | 10 |
| Closing of the Meeting..... | 16 |

BOBTFRG/7
Table of Contents

APPENDIXES

| | | |
|-------------|-------------------------------------------------------------------------------------|-----|
| Appendix A: | List of Participants..... | A-1 |
| Appendix B: | List of Working and Information Papers..... | B-1 |
| Appendix C: | BOBTFRG Task List | C-1 |
| Appendix D: | Update on Selected ATS Route Proposals Related to BOB Area | D-1 |
| Appendix E: | BOBTFRG ATS Route Overview and Implementation Timelines for Priority Areas | E-1 |

INTRODUCTION

Meeting

1.1 The seventh meeting of the Bay of Bengal Traffic Flow Review Group (BOBTFRG/7) was held as a Virtual Teleconference (VTC), from 9 to 11 December 2025.

Attendance

2.1 The meeting was attended by 71 participants from Bangladesh, India, Indonesia, Malaysia, Singapore, Sri Lanka, Thailand, IATA, and ICAO. Additionally, two member states, including China and Republic of Korea, participated as observer delegations.

2.2 A list of participants is appended at **Appendix A** to this report.

Officers and Regional Office

3.1 Mr. Hyuk Jin Kwon, Regional Officer, ATM, ICAO Asia and Pacific Regional Sub-Office was a Secretary for the meeting.

Opening of the Meeting

4.1 On behalf of Mr. Tao Ma, Regional Director of ICAO Asia and Pacific Office, Mr. Hyuk Jin Kwon welcomed participants to the meeting.

Documentation and Working Language

5.1 The working language of the meeting and all documentation was English. There were nine Working Papers (WP), four Information Papers (IP), one Flimsy considered by the meeting.

5.2 A list of papers is included at **Appendix B** to this report.

Decisions of BOBTFRG – Definition

6.1 BOBTFRG recorded their actions in the form of Decisions within the following definitions:
a) **Decisions** of BOBTFRG that related solely to matters dealing with the internal working arrangements of this body.

List of Decisions

7.1 List of Decisions

Nil

REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Agenda

Adoption of Agenda

1.1 The Agenda (WP/01) was adopted by the meeting, which noted the Provisional List of Working and Information Papers (IP/01) and the Tentative Order of Discussion (IP/00).

Agenda Item 2: Review of the Current and Planned CNS/ATM Capabilities and Identifying Associated Reduced Horizontal Separation

The Outcomes of the Relevant Meetings (WP/02)

2.1 At the BOBTFRG/7 meeting, ICAO provided a summary of formal outcomes from SAIOSEACG/4, AAC/4, CNS SG/29, and FIT-Asia/15 that were pertinent to the discussion.

2.2 ICAO reviewed recent regional meeting outcomes that support the Bay of Bengal objective of using reduced separation, performance-based separation standards. These outcomes help the region move towards stable 30 NM, and in some cases 20 NM, operations by expanding PBCS use, improving CNS/ATM performance and monitoring, advancing key ATS routes such as BOB 03, and making better use of FRA and TBO enablers. They also reinforce the need for stronger cross-border coordination and formal CRA arrangements as a foundation for safely applying reduced separation in the Bay of Bengal.

2.3 The meetings highlighted several points relevant to the BOB region. States were encouraged to maintain 20 NM surveillance separation during large-scale weather deviations where safety assessments support it, instead of reverting to 50 NM, to avoid unnecessary capacity loss, delays, extra fuel burn, and increased ATC workload. The importance of harmonising separation minima at FIR boundaries and progressing route development, including BOB 03, was underlined.

2.4 Regional work on TBO, ATFM, FRA trials, and supporting technical enablers such as SWIM, FF-ICE, and AIDC was also noted, together with PBCS and data link performance monitoring. While most FIRs meet the minimum 95% data link performance requirement, many still do not achieve the 99.9% target. States including Indonesia, Malaysia, Singapore, and India are taking actions such as closer monitoring, operator follow-up, and improving PBCS flight plan indicators. ICAO and CRA Boeing stressed that formal CRA agreements and regular, high-quality performance data are essential prerequisites for safely applying minimum separation standards, including in the Bay of Bengal.

2.5 The meeting calls for states to consider these key outcomes in aligning their national and regional aviation safety goals, emphasising the adoption of Project 30/10, collaboration on FRA, and preparation for FF-ICE transition.

Trial Implementation of PBCS 30NM Longitudinal in the Separation in the Bay of Bengal Area (KL FIR) (WP/03)

2.6 Malaysia has been conducting a one-year trial of Performance-Based Communication and Surveillance (PBCS) 30 NM longitudinal separation on ATS route N571 between GUNIP and IGOGU in the Kuala Lumpur FIR, from 7 August 2025 to 6 August 2026, for flight levels FL280 to FL410. The 30 NM minimum is applied only to aircraft that are approved for RNP 2 or RNP 4, equipped with ADS-C and CPDLC, and meet RCP 240 and RSP 180 requirements; all other aircraft continue to use 50 NM separation.

2.7 Initial operations show that 30 NM separation can be safely applied and brings benefits in terms of airspace capacity, more efficient flight profiles, and better environmental performance. When data link issues or weather complications arise, controllers revert to conventional separations such as 50 NM or Mach Number Technique to maintain safety. A standard operating procedure between India and Malaysia governs the application, suspension, and resumption of 30 NM separation on N571.

2.8 Based on the results of this trial and system performance, Malaysia plans to decide on permanent implementation after August 2026 and may extend 30 NM PBCS-based separation to other oceanic routes in the Bay of Bengal region.

2.9 As for Malaysia's trial, India acknowledged the 30 NM PBCS separation between Chennai and Kuala Lumpur, requesting Malaysia to perform a 24-hour trial. Malaysia clarified that the 24-hour trial has been in effect since its initial trial implementation. Malaysia also informed that it has established an agreement with Airways New Zealand to perform data analysis on ADS-C/CPDLC performance within the Kuala Lumpur FIR. Meanwhile, for the resolution of problem reports, Malaysia is actively engaging with CRA Boeing through the FIT-ASIA platform.

2.10 India acknowledged receiving the Boeing CRA letter, and Malaysia and Sri Lanka confirmed it too. IATA welcomed the developments, and India encouraged airlines to adopt PBCS.

Implementation of Project 30/10 within Colombo FIR (IP/02)

2.11 Sri Lanka introduced Project 30/10, which promotes using 30 NM or less longitudinal separation in oceanic/remote airspace and 10 NM or less in other areas, to reduce overly large separations and support seamless operations.

2.12 It noted that Sri Lanka currently applies 5 NM longitudinal separation in surveilled (Category S) airspace, and 50 NM longitudinal separation (without ADS-C) in remote (Category R) airspace within the Colombo FIR. Sri Lanka plans to introduce RNP 4 operations on selected routes in line with the APAC Seamless ANS Plan.

2.13 ICAO expressed to thank Sri Lanka for reminding of importance of active and swift action align with Project 30/10 to move forward to better harmonized ATM operation.

2.14 IATA supports Sri Lanka's plans for RNP4/PBCS and offered assistance in developing a suitable roadmap from the operator's point of view. Sri Lanka notes equipage and CPDLC issues on some routes. India raises concerns about increasing reports of GNSS spoofing.

Agenda Item 3: Review of the Existing Traffic Flow Route Structures in BOB Airspace and Identifying Priorities

Traffic Sample Data Visualization over the Bay of Bengal Airspace (WP/04)

3.1 MAAR introduced Traffic Sample Data (TSD) from flights operated in December each year to create traffic flow visualizations as shown **Figure 1** and to support annual traffic simulations for safety assessments. To assist the Bay of Bengal Traffic Flow Review Group (BOBTFRG), these visuals were shown at the Meeting to highlight route structure and traffic trends.

3.2 The MAAR informed the Meeting of several limitations in the TSD. Each State generates TSD differently (from ATM systems, manual preparation, or flight plans), so some data show actual trajectories while others show only planned routes. In some cases, important points or a significant

number of flights may be missing. Despite these limitations, the visualizations and comparison tables and graphs clearly show year-to-year changes in traffic flows and volumes on the selected Bay of Bengal routes.

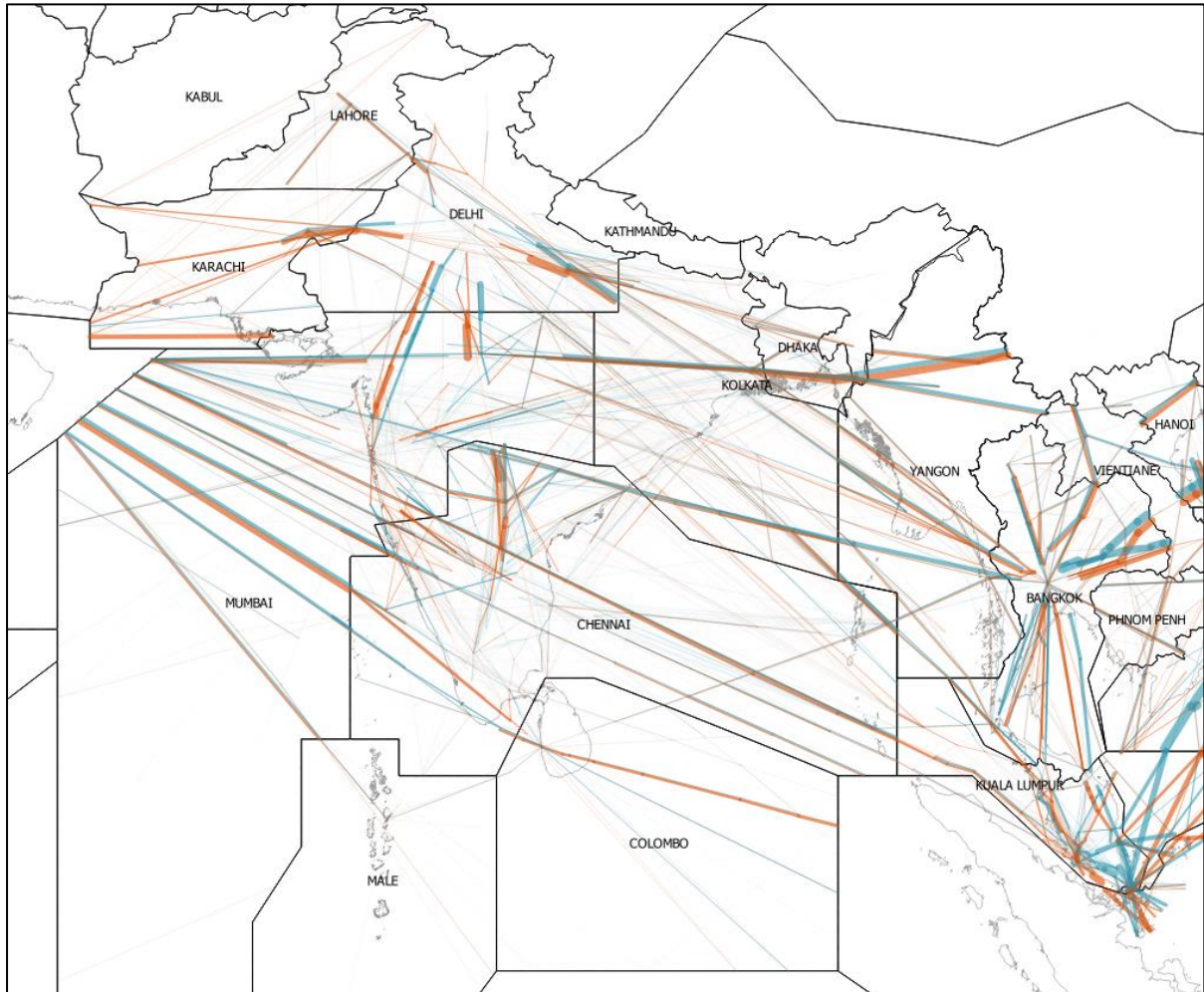


Figure 1: 2024 Traffic Flow from TSD in the Bay of Bengal Area

BOBTFRG/7
Report on Agenda Items

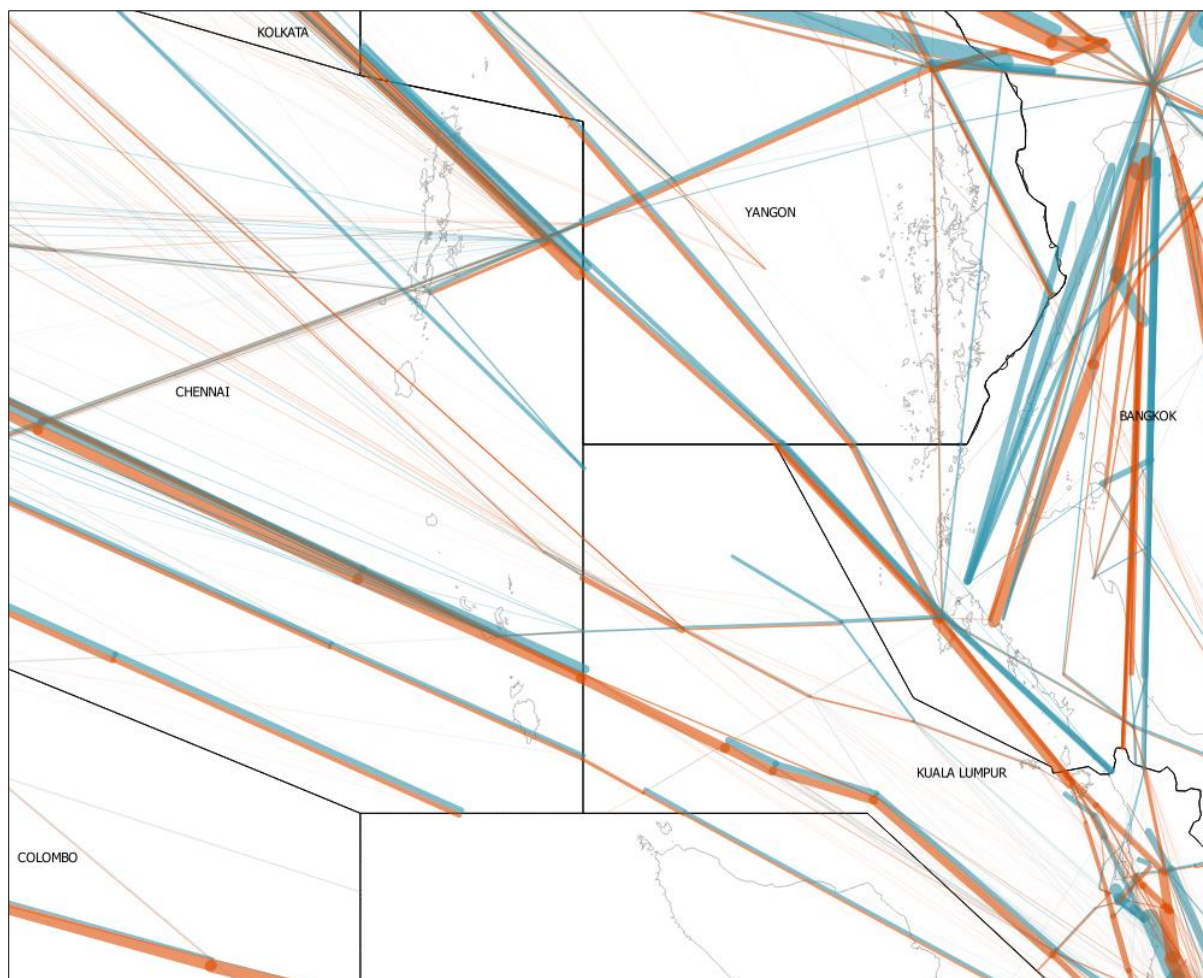


Figure 2: The number of flights in the Bay of Bengal airspace based on Traffic Sample Data (TSD) from 2018 to 2024. (Route L759, P628, L510, L645 and N571)

| Route | Portion | Direction | The number of flights | | | | | | |
|-------|----------------|-----------|-----------------------|------|------|------|------|------|------|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| L759 | MIPAK to TAVUN | Eastbound | 1458 | 947 | 81 | N/A | 795 | 238 | 741 |
| L759 | TAVUN to MIPAK | Westbound | 1250 | 961 | 48 | N/A | 457 | 510 | 659 |
| P628 | MAPSO to IGREX | Westbound | 432 | 405 | 159 | 184 | 252 | 249 | 394 |
| L510 | EMRAN to IDKUT | Eastbound | 551 | 693 | 134 | N/A | 394 | 638 | 575 |
| L510 | IDKUT to EMRAN | Westbound | N/A | N/A | N/A | N/A | N/A | 107 | 170 |
| L645 | SAMAK to IDKUT | Eastbound | 6 | 9 | 10 | 18 | 17 | 138 | 83 |
| L645 | IDKUT to MAPSO | Eastbound | 13 | 81 | 11 | 18 | 48 | 98 | 218 |
| L645 | MAPSO to IDKUT | Westbound | 12 | 211 | 10 | 17 | 107 | 196 | 277 |

BOBTRG/7
Report on Agenda Items

| Route | Portion | Direction | The number of flights | | | | | | |
|-------|----------------|-----------|-----------------------|------|------|------|------|------|------|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| L645 | IDKUT to SAMAK | Westbound | 108 | 213 | 10 | 16 | 113 | 204 | 226 |
| N571 | IGOGU to NILAM | Eastbound | 1684 | 2096 | 715 | 385 | 1217 | 866 | 1116 |
| N571 | VAMPI to GUNIP | Eastbound | 1116 | 1319 | 495 | N/A | 937 | 666 | 866 |
| N571 | GUNIP to VAMPI | Westbound | 1466 | 1394 | 387 | N/A | 693 | 679 | 599 |
| N571 | NILAM to IGOGU | Westbound | 1706 | 1599 | 428 | 689 | 1290 | 971 | 985 |

Table 1: The number of flights in the Bay of Bengal airspace based on Traffic Sample Data (TSD) from 2018 to 2024. (Route L759, P628, L510, L645 and N571).

Note: N/A" indicates that no data from the TSD for that particular year

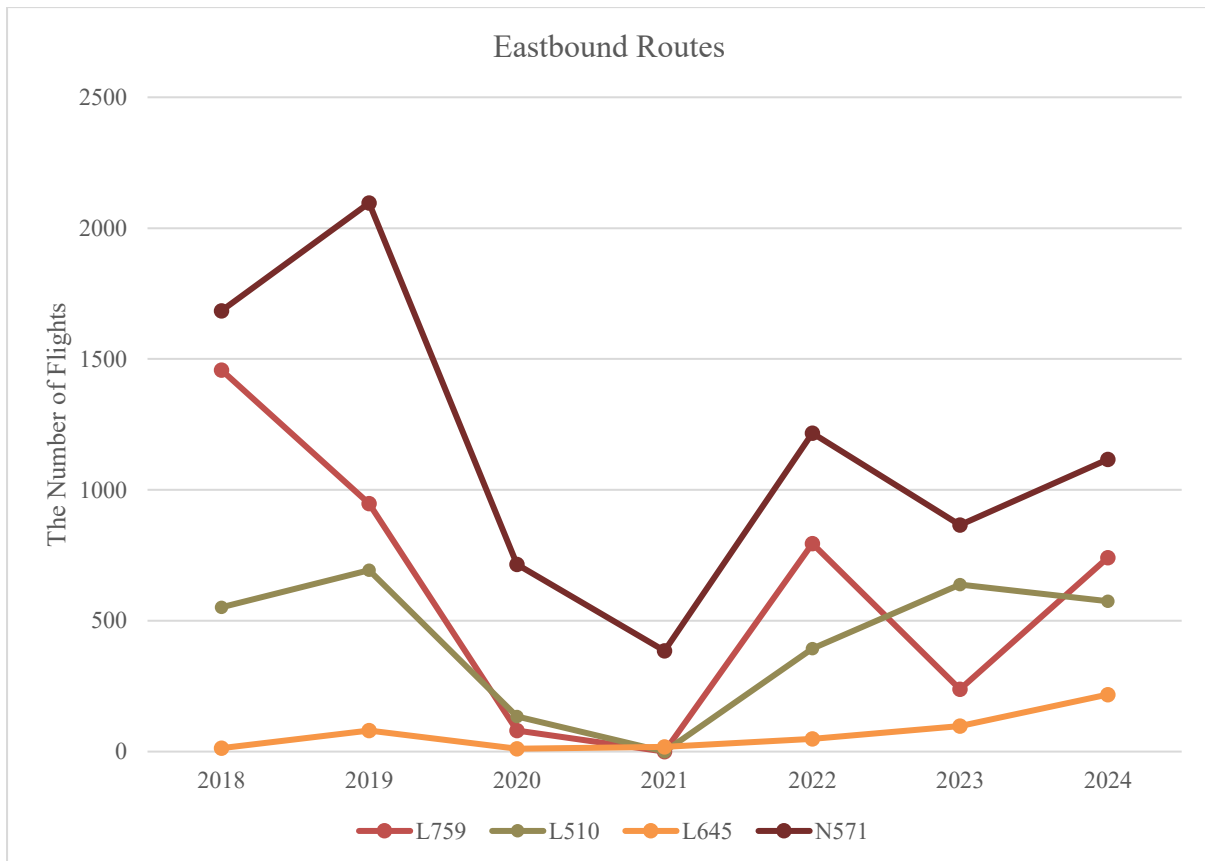


Figure 3: The line graph of flights in the Bay of Bengal airspace based on Traffic Sample Data (TSD) from 2018 to 2024. (Route L759, P628, L510, L645 and N571)

3.3 All the participants appreciated MAAR's efforts in data collection and analysis, recognizing the need for enhanced data-driven decision-making in air traffic management.

BOBTFRG/7
Report on Agenda Items

Review of BOBTFRG ATS Route Operation Improvement and Priority Areas Implementation Timelines (WP/05)

3.4 ICAO Secretariat elaborated how States in the Bay of Bengal are working together to move toward modern, performance-based separation using PBCS, in line with the Asia/Pacific Seamless ANS Plan and ICAO’s global Project 30/10. BOBTFRG had earlier agreed Priority Areas 1 and 2 and a three-phase PBCS trial plan.

3.5 The meeting reviewed and discussed the current separation map and readiness table, confirming and adjusting the implementation timelines for BOBTFRG Priority Areas.

3.6 Under the Seamless ANS Plan, Category R airspace is expected to use ADS-C and CPDLC with the “best equipped, best served” principle and move from RNAV 10 to RNP 4 or RNP 2. ICAO standards already allow common performance-based separations (23 NM lateral, 50 NM and 30 NM longitudinal), but most Bay of Bengal routes still use RNAV 10 and larger separations.

3.7 AN-CONF/14 launched Project 30/10 to harmonize longitudinal separation at 30 NM or less in oceanic/remote airspace and 10 NM or less elsewhere, and States are encouraged to align their plans accordingly. India has already implemented 20 NM on some routes using space-based ADS-B and is piloting 20–30 NM on N571.

3.8 The agreed three-phase PBCS plan for the Bay of Bengal is as follows:

- Phase 1 – apply 50 NM longitudinal separation based on existing RNAV 10 capability;
- Phase 2 – start trials of 30 NM longitudinal / 23 NM lateral separation with harmonized ADS-C/CPDLC and RNP 4/2, RCP 240, RSP 180; and
- Phase 3 – move to permanent 30/23 NM no later than 1 March 2026, subject to positive post-implementation safety reviews and ANSP readiness.

3.9 States reported mixed progress. India and Malaysia are already applying or testing reduced separations on selected routes; Sri Lanka has implemented 50 NM and upgraded its ATM system for PBCS; Indonesia is targeting 2026 for space-based ADS-B; and Bangladesh is planning a three-phase separation reduction programme linked to its new ATM system.

3.10 Current separation in the Bay of Bengal is improving. However, it has to be harmonized across the States. Malaysia and India have jointly implemented default 50 NM separation plus an extra flight level (FL360) on key routes (L510, N571, P574, P628), supported by departure procedures to maintain spacing, and contingency arrangements for large-scale weather deviations. India applies 20 NM on L301/L639 and having trial operation of 20 NM longitudinal separation on N571 with space-based ADS-B between Mumbai and Muscat FIR in Mumbai Oceanic airspace, while Sri Lanka applies 50 NM and prepares for PBCS operations. Indonesia uses 20 NM surveillance-based separation on P574 and 50 NM on other routes and notes the new 15 NM standard for use in FRA when RNP 4 is met.

3.11 A readiness table shows as **Table 2** that many States still need upgrades in flight plan processing for PBCS, RCP/RSP capabilities, and formal post-implementation monitoring.

3.12 With the understanding of the requirements of applying 30 NM longitudinal separation with RNP 4 specification, **Table 2** collected the ATM/CNS system readiness among the BOB member States at the meeting.

| STATE | FIR | FPL PROCESSING FOR PBCS | ADS-C /CPDLC | RCP 240 | RSP 180 | POST IMPLEMENTATION MONITORING | REMARK |
|-------|-----|-------------------------|--------------|---------|---------|--------------------------------|--------|
| | | | | | | | |

BOBTFRG/7
Report on Agenda Items

| | | | | | | | |
|------------|--------------|-----|--------------------------------------------------------------------------|-----|-----|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| BANGLADESH | DHAKA | NO | The testing of ADS-C and CPDLC has been conducted and found satisfactory | NO | NO | NO | ATM automation system is expected to be implemented on O1 2026. |
| INDIA | CHENNAI | YES | AVAILABLE | YES | YES | YES | |
| | KOLKATA | NO | AVAILABLE | YES | YES | YES | |
| | MUMBAI | YES | AVAILABLE | YES | YES | YES | System testing required |
| INDONESIA | JAKARTA | NO | TRIAL | NO | NO | NO | The system has been upgraded until Q3 2026. |
| MALAYSIA | KUALA LUMPUR | NO | AVAILABLE | YES | YES | YES | monitoring only for ADS-C/CPDLC Post-implementation monitoring report is being submitted to MAAR, CRA still pending. |
| MYANMAR | YANGON | NO | YES | NO | NO | NO | |
| SRILANKA | COLOMBO | YES | AVAILABLE | YES | YES | NO | Trials to be commenced. |
| THAILAND | BANGKOK | YES | NO | NO | NO | AVAILABLE | En-route airspace is fully covered with SSR. no plan to prescribe PDC. |

Table 2: The readiness of ATM/CNS system of BOB States (Updated by BOBTFRG/7)

3.13 ICAO stated that the Asia/Pacific region is gradually moving toward harmonized PBCS-based separations and Project 30/10 targets in the Bay of Bengal, but differences in system readiness, automation, and applied minima still create bottlenecks. Continued investment in CNS/ATM systems, safety assessments, and cross-border coordination is essential to fully realize the expected capacity and efficiency gains.

3.14 Regarding **Figure 4** and **Attachment E**, *BOBTFRG ATS Route Overview and Implementation Timelines for Priority Areas*, ICAO invited States to update the fleet equipage analysis (AIDC, ADS-C, CPDLC, RNP 10/4/2) and noted that existing projected timelines (e.g. for PBCS and RNP 4 implementation) are now in the past and must be progressed.

3.15 India informed the Meeting that it plans to remove FLAS on Bay of Bengal routes in Kolkata FIR after a safety assessment and is also evaluating the removal of FLAS in Chennai FIR, in coordination with Mumbai FIR, due to the linkage with Arabian Sea flows.

3.16 India confirmed that 30 NM longitudinal separation is currently applied between India and Sri Lanka at their FIR boundary points, and that the proposal of Sri Lanka for 20 NM longitudinal separation is at this stage only a proposal that will be evaluated by India.

3.17 India further explained that 50 NM longitudinal separation has been implemented with some neighbors (e.g. Malaysia and Sri Lanka), but that India has not been able to implement similar reduction with Myanmar despite an LOA, due to Myanmar's non-availability. India emphasized that

BOBTFRG/7
Report on Agenda Items

Myanmar's airspace is critical for Bay of Bengal flows and requested ICAO and IATA support to help bring Myanmar into regional reduced-separation initiatives.

3.18 Bangladesh reported that its new ATM automation system has been fully installed and that the messaging (AMHS) cutover from the old to the new system has been successfully completed.

3.19 Bangladesh indicated that operational use of the new ATM automation system is planned to begin in the first quarter of 2026, with a target of around January 2026; this date is indicative and should be confirmed later.

3.20 Bangladesh also stated that automatic handoff to adjacent FIRs is planned for around the third quarter of 2026.

3.21 Bangladesh confirmed that initial AIDC testing with Kolkata was successful, but formal testing and official operational activation have not yet been completed. An online coordination meeting with Kolkata ACC is planned, and Bangladesh will provide updated status at a future meeting.

3.22 Bangladesh added that ADS-C and CPDLC had been tested with a few aircraft with successful results, but no formal date was given for full operational deployment.

3.23 Sri Lanka confirmed that current coordination between India and Colombo uses 30 NM longitudinal separation at their boundary points.

3.24 Sri Lanka stated that it is willing to move to 20 NM longitudinal separation with India in the future, if India agrees and once appropriate assessments and coordination are completed.

3.25 Sri Lanka clarified that 20 NM is a proposal, not an ongoing implementation, and that any change will first need evaluation by India. India stated that it will evaluate any such proposal.

3.26 Malaysia confirmed that the current longitudinal separation between Bangkok FIR and Kuala Lumpur FIR is 20 NM. The specific routes were not detailed in the discussion and should be confirmed from LOAs and safety cases.

3.27 India stressed that reduced separation in the Bay of Bengal cannot be effectively implemented unless Myanmar participates, because Myanmar remains the main bottleneck and controllers would otherwise have to revert to 10-minute separations in parts of the route, which is operationally difficult and reduces benefits.

3.28 India clarified that there are currently no RNP 4 or RNP 2 routes in Indian or Bay of Bengal airspace; most routes are still RNP 10, and a significant portion of aircraft are not equipped for RNP 4/2 and PBCS. Therefore, declaring routes as RNP 4/2 today would exclude many flights and is not practical at this stage.

3.29 India suggested that a practical approach could be to reserve some flight levels for RNP 4/2 and PBCS equipped aircraft and others for RNP 10, to satisfy "best equipped, best served" principles without making the whole route RNP 4/2.

3.30 Sri Lanka agreed with India's assessment that implementing RNP 4 or RNP 2 and associated reduced separation must be handled at a regional level. Designating part of the route any one FIR as RNP 4/2 will not help much.

3.31 Sri Lanka noted that its ATM system is already technically capable of supporting PBCS, and the main remaining issue is the CRA agreement and associated costs, which are still being resolved.

BOBTFRG/7
Report on Agenda Items

3.32 Sri Lanka explained that most westbound traffic from Colombo FIR goes toward Indian airspace, and if RNP 4 is implemented only in Colombo FIR while India remains RNP 10, controllers would need to revert from 30 NM back to 50 NM once flights enter Indian airspace. This would create an operational bottleneck and reduce the benefit of Sri Lanka’s investment.

3.33 Indonesia reported that PBCS-related capabilities including ADS-C/CPDLC are expected to be approved and operational in the first quarter of 2027.

3.34 IATA explained that in the region there is typically a mixed equipage profile of roughly 50–60% equipped vs. non-equipped aircraft, so declaring entire airspace as RNP 4 or RNP 2 would be challenging and not realistic in the near term.

3.35 IATA supported the route-based, “opportunity-based” approach already being used, where States select routes with the highest proportion of equipped traffic—for example N571 in the Bay of Bengal and L639/L301 in the Arabian Sea, where India has implemented 30/20 NM longitudinal separation by extending VHF and surveillance coverage.

3.36 IATA suggested that States could use extended VHF/surveillance coverage, change airspace classification, and apply reduced separation where feasible, then revert to larger separations beyond coverage, balancing safety, capability, and equipage.

3.37 IATA recommended that the regional plan should explicitly mention “opportunity-based” and “capability-based” implementation, reflecting that reduced separation will be applied where and when aircraft equipage and infrastructure allow.

3.38 Malaysia agreed with India and IATA on the challenges of full RNP 4/2 implementation and supported the idea that existing rigid timelines in the tables should be removed or changed to “to be determined”, since previous target dates have already passed.

3.39 Malaysia also supported adding “opportunity-based” and “capability-based” concepts to the description of PBCS implementation, aligning with the best-equipped, best-served principle.

3.40 And Malaysia confirmed that an SOP has already been signed between Malaysia and India for the trial implementation of 30 NM longitudinal separation (PBCS-based) and stated that, once the trial becomes permanent, these arrangements will be incorporated into their national ATC coordination procedures.

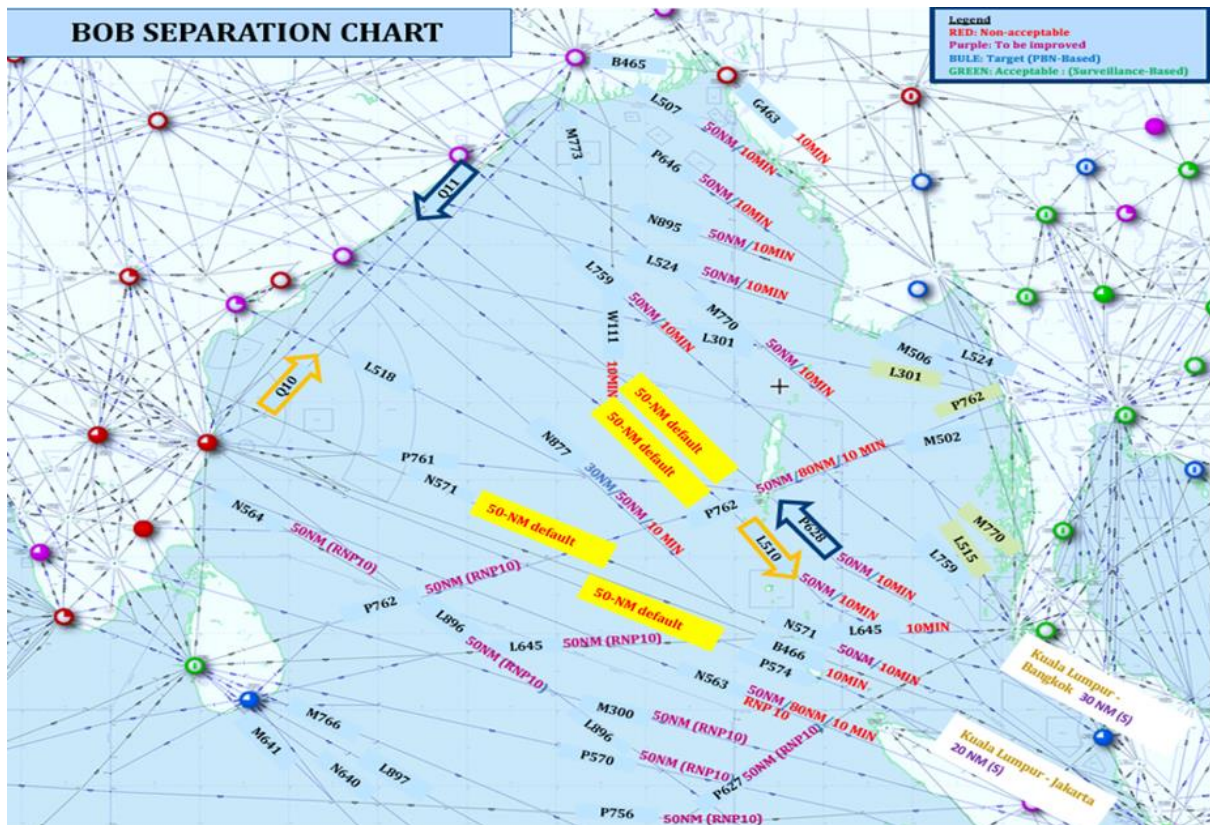


Figure 4: Horizontal Separation Minima being applied in the BOB area(Confirmed by BOBTFRG/7).

BOBCAT ATFM Operational Updates (IP/03)

3.41 Thailand shared the current situation of the Bay of Bengal Cooperative ATFM (BOBCAT) system at the meeting. This system was reactivated on 4 September 2025 to manage night-time westbound traffic through the Kabul FIR. During the first 76 days of operation, BOBCAT handled 3,222 flights, averaging about 42 flights per night, with a peak of 54 flights. Most flights entered Kabul FIR via the DOBAT (N644) and BIROS (L750) entry points, and major contributors included departures from Bangkok, Delhi, Singapore, and Taipei.

3.42 The average ATFM delay assigned by BOBCAT was 2.6 minutes per flight, which indicates an effective balance between traffic demand and available capacity. By moving delay from the air to the ground, BOBCAT operations are estimated to have saved approximately 959 tons of fuel and reduced about 3,030 tons of CO₂ emissions during the period. Most flights were able to enter the Kabul FIR at the same or higher flight level than allocated, showing good use of available airspace.

3.43 However, some issues remain. Several aerodromes recorded high rates of missing departure (DEP) messages, reducing the accuracy of post-operational analysis. Compliance with CTOT and CTO also varied, suggesting the need for better slot adherence and possibly wider CTO tolerance windows. Thailand will continue to operate BOBCAT and carry out post-operational analyses using Traffic Sample Data provided by States, with results reported to relevant regional meetings.

3.44 As per reviewing of demand, capacity, integration of New Delhi departures into BOBCAT traffic, and future use of the BOBCAT tool, the Meeting agreed with India’s suggestion to keep these items pending until further guidance from the ATFM Steering-Group (ATFM/SG) and requested India to provide an update at the next SAIOSEACG/5 meeting and by email.

Agenda Item 4: Discussion on PBN Routes Development and FLAS/FLOS Optimisation

Review of Selected ATS Route Proposals from the Asia/Pacific Region ATS Route Catalogue (WP/06)

4.1 ICAO Secretariat shared that ICAO continues to update the Asia/Pacific ATS Route Catalogue to reflect current and future route needs, using information provided by States, Administrations and airspace users through correspondence and regional meetings. The latest draft, Version 25.0, incorporates feedback discussed at SAIOSEACG/4 in March and ATM/SG/13 in August 2025 and presents the current status of route proposals.

4.2 The Meeting also highlighted outcomes from BIMT/8, where Bangladesh, Myanmar and Thailand reviewed Bay of Bengal route developments and agreed to continue the BIMT project to increase capacity by establishing parallel routes from Bangkok FIR to Kolkata and Dhaka FIRs via Yangon FIR. As a result, a new proposal, BOB 03 (BIMT Phase 2b: Myanmar–Thailand Route Development), was added to the Catalogue as a PBN route (RNAV 2 or RNAV 10), with the conventional G473–MAKAS route retained for non-PBN aircraft.

4.3 The meeting encouraged ANSPs to explore alternative variants of existing proposals to gain partial benefits where full implementation is not yet possible and stressed the need to address challenges related to restricted and special-use airspace through continued regional coordination.

4.4 In terms of HIMALAYA 02 (India–Nepal–Myanmar–China) IATA stated that it supports the HIMALAYA 02 proposal and expects clear operational benefits for flights operating from Nepal to Far East. IATA advised that there are currently no new updates from its side and emphasized that all four involved States to agree for the route can be established. IATA confirmed that it is waiting for States' responses.

4.5 Regarding BOB 03 (Myanmar–Thailand), Thailand informed the meeting that a bilateral meeting between Thailand and Myanmar is planned for the following week. Thailand stated that, if Myanmar clarifies its position on the proposal, the two States will prepare an implementation timeline and report the outcome to a future regional meeting, such as SAIOSEACG/5.

4.6 As per PAK 01, IATA reported that there has been no concrete progress since the last meeting. IATA explained that this route was proposed when Afghanistan overflights were heavily constrained, but that some overflights have since resumed. IATA recommended that Pakistan consider establishing the route at least on a contingency or opportunity basis, for example when there is no military activity, under Flexible Use of Airspace concepts.

4.7 IATA emphasized that additional trunk routes can improve options for weather avoidance and better use of jet streams, especially during periods of strong winds. IATA also suggested that the catalogue should reflect that the route remains under consideration pending Pakistan's further comments.

4.8 About AFG 03, IATA explained that both Pakistan and Dushanbe FIRs are ready in principle to accept this route. However, there is still no normal ATS provision in Afghanistan, and overflights remain under contingency arrangements. For this reason, participants agreed that it is premature to design new permanent route structures over Afghanistan.

Review of the Existing FLAS/FLOS in Bay of Bengal Airspace (WP/07)

4.9 ICAO Secretariat explained the current status and issues of the Flight Level Allocation

4.14 IATA welcomed India's intention to remove FLAS and described it as a significant step that has been requested for a long time. IATA linked this progress to recent ANS infrastructure upgrades, surveillance and communication improvements, and expressed support for both Kolkata and Chennai FIRs moving towards FLAS removal.

4.15 In line with the APAC Seamless ANS Plan, States are expected to use the ICAO standard Table of Cruising Levels (Annex 2, Appendix 3a) and give priority in level allocation to higher-density routes. Any non-standard FLAS outside organised track systems should only be used where clearly justified for safety and efficiency and agreed by all affected ANSPs.

4.16 The Meeting also recalled that the Bay of Bengal is identified as lacking sufficient ATS surveillance as **Figure 6** and DCPC VHF coverage as **Figure 7**, based on 2022 ground-based coverage maps, underscoring the need for further CNS improvements.

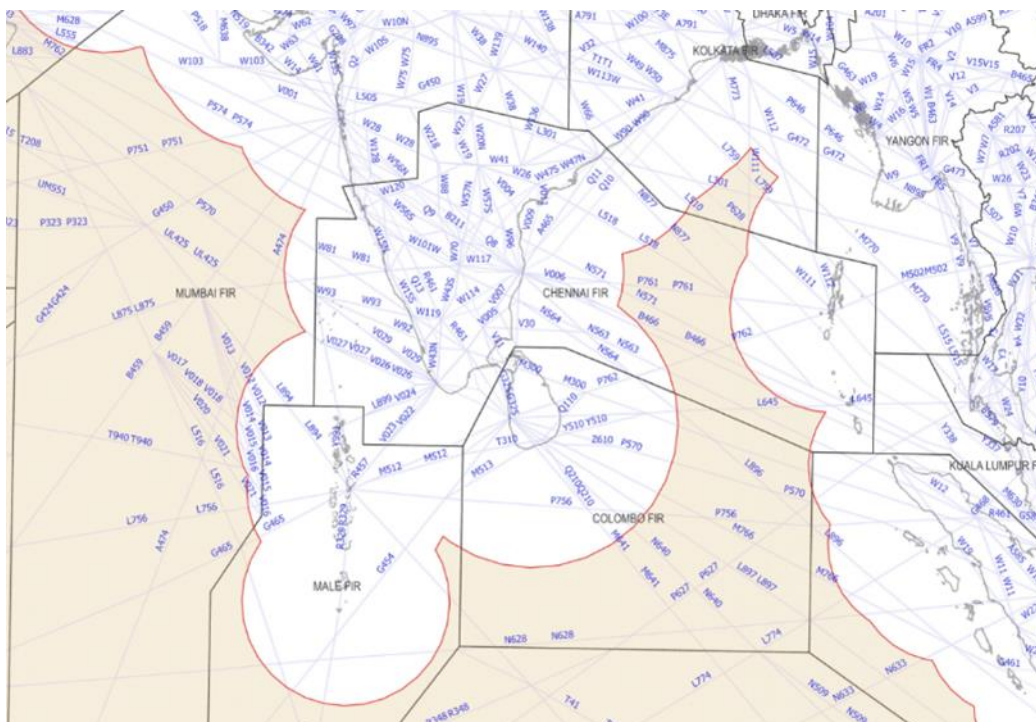


Figure 6: ATS Surveillance coverage in the BOB area of 2022

4.17 India also noted that communication between Myanmar and Kolkata can occasionally be lost, for example due to submarine cable cuts. In such cases, India and Myanmar may temporarily reintroduce FLAS by mutual agreement to maintain safety. India stated that it is otherwise allocating flight levels normally and intends to progressively withdraw FLAS, and it committed to inform ICAO through papers when changes are implemented.

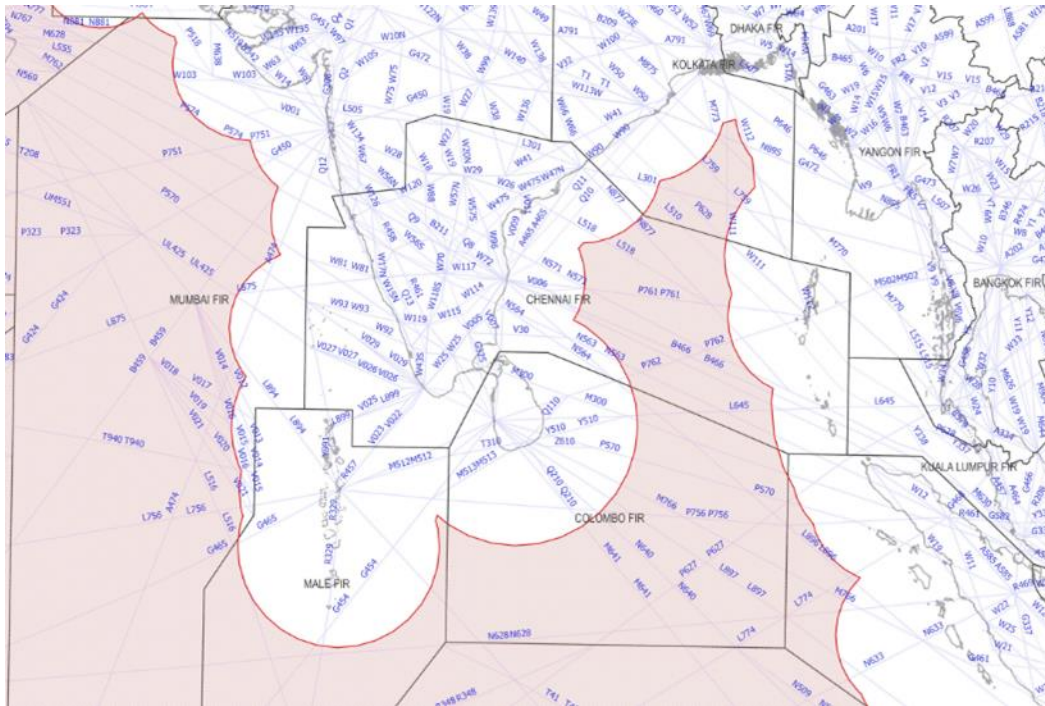


Figure 7: DCPC VHF coverage in the BOB area of 2022

Agenda Item 5: Review of BOBTFRG Task List

5.1 Review of BOBTFRG Terms of Reference and Task List (WP/09)

5.2 ICAO presented WP/09, which contained the BOBTFRG Terms of Reference for review and the BOBTFRG Task List for updating.

5.3 This Meeting proposed updated Terms of Reference and a Task List for the Bay of Bengal Traffic Flow Review Group (BOBTFRG) and invited the member states to review and discuss them. It recalled that BOBTFRG was created in 2017 to improve traffic flow and airspace efficiency in the Bay of Bengal in line with the APAC Seamless ANS Plan and noted good progress in areas such as PBCS-based separations, CNS enhancements, and trial projects that have helped increase capacity while maintaining safety.

5.4 With traffic in the region continuing to grow, the Meeting underlined the need to further strengthen cooperation and move toward a more integrated approach that combines air traffic flow management (ATFM) and capacity management. The long-term vision is a more seamless and unified ATFM framework across the Bay of Bengal.

5.5 The BOBTFRG Task List, as updated by the meeting is appended at **Appendix C** to this report.

Agenda Item 6: Decision/Recommendations to SAIOSEACG

- Nil
-

Agenda Item 7: Any Other Business

Indonesia's Progress on User Preferred Routes (UPR) and Cross-FIR Boundary Operations toward Regional FRA Readiness (WP/08)

7.1 Indonesia reported on its phased implementation of User Preferred Routes (UPR) in the Jakarta and Ujung Pandang FIRs since 2020, as part of its transition toward Trajectory-Based Operations and future Free Route Airspace. UPR moved from limited trials to formal publication in the AIP on 5 October 2023, and now includes cross-border operations with Port Moresby, Oakland Oceanic, Singapore (via Direct Routing), Brisbane and Melbourne. In parallel, Indonesia is upgrading its ATM system (new ATMAS) to better manage flexible trajectories and support wider regional UPR/FRA use.

7.2 Operational results show clear efficiency and environmental gains. In 2024–2025, more than 4,000 UPR flights were recorded, with average fuel savings of about 300 kg per flight and notable CO₂ reductions, while safety monitoring confirmed no increase in sector complexity, conflicts or controller workload. Challenges remain with a high rate of rejected UPR flight plans due to formatting errors, routing through restricted areas, and impractical notification procedures for airlines.

7.3 Indonesia is now simplifying UPR filing and notification processes and enhancing automation, trajectory processing, and data link capabilities to support broader, harmonized cross-border UPR use, including toward the Bay of Bengal.

7.4 ICAO emphasized that Indonesia's UPR implementation supports trajectory-based operations and future free route developments and noted that it provides clear operational and environmental benefits. ICAO encouraged Bay of Bengal States to use Indonesia's experience as an example when planning regional FRA/UPR concepts and cross-FIR harmonization.

7.5 IATA commended Indonesia's work, stressing that Indonesia has shown UPR and TBO concepts can be implemented in everyday operations without increasing controller workload. IATA encouraged neighboring FIRs to consider joining and extending UPR operations and recommended that coastal areas with good radar and VHF coverage be considered as candidates for free route airspace linked with UPR and TBO.

Implementation of Free Route Airspace within Colombo FIR (IP/04)

7.6 Sri Lanka shared the plan of Free Route Airspace (FRA) in the Colombo FIR at the meeting. They have been gradually introducing Free Route Airspace (FRA) in the Colombo FIR to allow more flexible, efficient flight routes while maintaining ATC control. As a first step, a User Preferred Route (UPR) airspace already allows approved, RNP 10 and ADS-C/CPDLC-equipped aircraft to fly optimized routes instead of fixed ATS routes. The next step is a Direct Routing Area (DRA) in surveillance airspace above FL290, supported by radar and ADS-B with 5 NM separation and ADS-C/CPDLC in oceanic areas.

7.7 DRA and later FRA will be implemented through a phased safety process, including system checks, hazard assessment, SOP development, and ATC training, with DRA targeted by March 2026. After implementation, Sri Lanka will monitor key indicators such as track miles, fuel savings, controller workload, and safety events, and ultimately aims to extend FRA across borders in coordination with neighbouring FIRs.

7.8 IATA appreciated Sri Lanka's efforts and described the initiative as a practical example of using upgraded infrastructure to deliver real flight efficiency benefits. IATA recalled earlier successful cooperation between Sri Lanka and India on Arabian Sea/Indian Ocean UPR and stated that airlines are ready to support Sri Lanka's planned FRA expansion.

Upgrading Air Navigation Systems to Support Future ATM Operations (Flimsy 01)

7.9 Indonesia is modernizing its air navigation systems to support future ATM operations and align with the ICAO GANP. The new ATM Automation System (ATMAS) in Jakarta ACC will improve surveillance and data link services (ADS-C/CPDLC) and use AIDC to automate coordination with neighboring ATC units.

7.10 A centralized ATFM system will manage demand and capacity for major Indonesian airports and will be integrated with ATMAS to apply ATFM measures such as departure slot times and flow restrictions.

7.11 AMHS is being upgraded to more reliably handle ATS, AIDC, and IWXXM weather messages, supporting future SWIM. AIS is also moving to AIM, providing digital AIP and other aeronautical datasets ready for AIXM-based exchange.

7.12 Installation is underway, with operations planned from Q2 2026, full transition by Q4 2026, and AIDC with other States in 2027. States are encouraged to harmonize AIDC and ATFM procedures.

Agenda Item 8: Date and Venue of the Next Meeting

8.1 The BOBTFRG/8 was tentatively planned for November or December 2026 at a location to be determined (preferably in Bangkok). States/Administrations considering hosting the BOBTFRG/8 were invited to contact the Secretariat.

Closing of the Meeting

Mr. Kwon Hyuk Jin thanked the meeting participants for their significant work during a busy meeting program.
