

IMPLEMENTATION TIMELINES FOR BOBTFRG PRIORITY AREAS V3.0

BOBTFRG Priority Area 1: Conduct a review of the air traffic flows in **Category S airspace** through Thailand, Myanmar, Bangladesh, India, Pakistan and Afghanistan. The objective is to develop a plan to implement improved and harmonised longitudinal spacing on affected ATS route(s) (targeting **20 NM longitudinal spacing**, or as close to the separation minima as practicable).

		Activity	Completion Date	Remarks
Phase 1	1	Identify current spacing implemented by States.	BOBTFRG/4 Completed	States to fill and submit the Attachment D to BOBTFRG/2 State Letter by 31 October 2019. Updated at BOBTFRG/3: Bangladesh, India, Indonesia, Malaysia, Myanmar, Pakistan and Thailand had submitted data to ICAO. Re: ATM/SG/9 WP/7, ICAO APAC Regional Office would circulate a new survey form, requesting APAC Administrations to provide information about the authorised ATC separation minimums and separation minimums at each FIR TOC point.
	2	Identify impediments to implementation of improved spacing (staffing and ATC sectorisation constraints).	Completed at BOBTFRG/3	States to fill and submit the Attachment D to BOBTFRG/2 State Letter by 31 October 2019. Updated at BOBTFRG/3: Reasons provided by States: communication and surveillance coverage limitations; ATM system capability related to PBCS; and low level of ADS-C/CPDLC equipage.
	3	Identify the ATS surveillance and communication gaps and actions taken to fill the gaps.	Closed at BOBTFRG/3	Ref CNS SG/23 WP/22. Updated at BOBTFRG/3: ATS Surveillance and DCPC VHF Coverage Charts was included in the <i>Asia/Pacific Seamless ANS Plan V3.0</i> .

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		Activity	Completion Date	Remarks
	4	Identify ATS Inter-Facility Data Communication (AIDC) and/or direct speech circuits' capabilities.	Closed at BOBTFRG/3	States to provide update to the Secretariat latest by 30 November 2019. Updated at BOBTFRG/3: Updated AIDC implementation status in the APAC Region was provided in Appendix B to the APA TF/7 Report.
	5	Investigate whether appropriate handoff procedures are implemented between controllers providing ATS surveillance in adjacent airspace – review ATS Letter of Agreement (LOA).	31 January 2022 Completed at BOBTFRG/4	Updated at BOBTFRG/3: Bangkok – Kuala Lumpur ACCs: Yes Bangkok – Yangon ACCs: Yes Jakarta – Kuala Lumpur ACCs: Yes Dhaka – Kolkata ACCs: expected in 2025. Dhaka – Yangon ACCs: expected in 2025. Yangon – Kolkata ACCs (ATS route A201)? Delhi – Lahore ACCs? Delhi – Karachi ACCs? Mumbai – Karachi ACCs? Lahore – Kabul ACCs? Karachi – Kabul ACCs? Colombo ACC – Chennai OCC?
	6	Review the existing Flight Level Allocation Scheme (FLAS) operating within the concerned airspace, with a view to improve efficiencies. Review and plan improved and efficient FLAS operating within the BOB airspace.	31 January 2022 BOBTFRG/5	States to fill and submit the Attachment D to BOBTFRG/2 State Letter by 31 October 2019. Updated at BOBTFRG/3: Reason for FLAS: multiple crossing of higher density routes over Category R airspace. States to confirm the accuracy of the information in the Bay of Bengal FLAS Chart (BOBTFRG/3 Report re: WP/07).

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		Activity	Completion Date	Remarks
	7	<p>States to identify routes along which reliable surveillance and communication are available to look at the possibility of reduced longitudinal spacing.</p> <p>Confirm the coverage of Surveillance and Communication over the BOB airspace (to be tasked to TF to draft the Plan of the BOB Route Network)</p>	<p>31 January 2022</p> <p>States (TF) report to SAIOSEACG/2</p>	<p>Updated at BOBTFRG/3:</p> <p>India and Pakistan: 50 NM longitudinal spacing implemented at the TOC points of following FIR boundaries: Delhi – Karachi FIRs; Delhi – Lahore FIRs; and Mumbai – Karachi FIRs.</p> <p>Indonesia and Malaysia: 20 NM longitudinal spacing implemented at the following TOC points: GOTLA, PUGER and SALAX.</p> <p>Malaysia and Thailand: 30 NM longitudinal spacing implemented at the TOC points between Bangkok and Kuala Lumpur FIRs.</p> <p>Myanmar and Thailand?</p> <p>India and Myanmar (ATS route A201)?</p> <p>India and Sri Lanka?</p>
Phase 2	8	<p>Complete the agreement between States to implement 20 NM longitudinal spacing (or as close to the separation minima as practicable) in Category S airspace through Thailand, Myanmar, Bangladesh, India, Pakistan and Afghanistan.</p> <p>Bangladesh regularly keeps the meeting updated the progress of CNS-ATM Modernization Project.</p>	2025	<p>Updated at BOBTFRG/3:</p> <p>Traffic operating north of Bay of Bengal airspace will traverse through Dhaka FIR, and currently no en-route ATS surveillance service provided in Dhaka FIR.</p> <p>To be reviewed in tandem with the Modernization Project of CNS-ATM System of Bangladesh.</p>

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BOBTFRG Priority Area 2: Conduct a review of the air traffic flows in Category R airspace within Bay of Bengal. The objective is to develop a plan to implement improved and harmonised **30 NM longitudinal spacing** on affected ATS routes.

		Activity	Completion Date	Remarks
Phase 1	1	Agreement between States to implement 50 NM longitudinal spacing between applicable aircraft on affected ATS routes. The application of performance-based separation minima and distance-based separation minima (RNP 10, with procedural position reports not less than 24 minutes apart) in airspace over the high seas requires supporting procedures in ICAO Doc 7030 – <i>Regional Supplementary Procedures</i> .	SAIOSEACG/1 States (TF) report to SAIOSEACG/2	Chennai and Kuala Lumpur ACC to signed revised LoA by 31 January 2020. Jakarta and Colombo had implemented 50 NM longitudinal spacing. Yangon and Kolkata, and Chennai had implemented 50 NM longitudinal spacing. Updated at BOBTFRG/3: Chennai OCC and Kuala Lumpur ACC had signed a new LoA, effected on 01 June 2021. 50 NM longitudinal spacing implemented. No update at the SAIOSEACG/1
	2	Facilitate potential modernization of Bangladesh CNS/ATM system (meeting tentatively planned for 23 October 2019).	Closed	ICAO RO to provide feedback during SAIOACG/10. Updated at BOBTFRG/3: The Modernization Project of CNS-ATM System of Bangladesh expected to be completed in 2024.
	3	Research and development project conducted by India, Singapore and any other interested States to look at technology capability and benefits, including the business case for enhanced surveillance and communication.	Closed	Subject to the approval from the competent agencies of each State. India and Singapore (ATMRI) would examine the proposal and submit their comments at the BOBTFRG/3. Updated at BOBTFRG/3: On 25 November 2019, Airport Authority of India had an informal meeting with ATMRI Singapore on the ICAO request in BOBTFRG/2 for a joint research and development. In the meeting, ATMRI informed that communications and surveillance was not in their domain of research, and they would not be able to

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		Activity	Completion Date	Remarks
				participate.
	4	Implementation of 50 NM longitudinal separation (RNAV 10/RNP 10) with PBCS in the BOB airspace, at or above a level to be determined.	To be discussed at SAIOSEACG/1 States (TF) report to SAIOSEACG/2	ADS-C/CPDLC non-exclusive mandate? PfA to ICAO Doc 7030 – <i>Regional Supplementary Procedures</i> . Current fleet equipage is less than 70%. Most of the non-equip aircraft are narrow-body aircraft and low cost airlines. Updated at BOBTFRG/3: States to issue AIC after SAIOACG/10. For better clarity, the ADS-C/CPDLC non-exclusive mandate should be referred to as “ <i>designation as non-exclusive PBN and PBCS airspace to allow operational priority for PBN and PBCS approved aircraft</i> ”. Due to the COVID-19 pandemic, which has caused severe impact on airlines and ANSPs resources and revenue, the discussion on the plan designation as non-exclusive PBN and PBCS airspace to allow operational priority for PBN and PBCS approved aircraft. has been postponed.
		a. States and IATA to conduct analysis on fleet equipage in ADS-C/CPDLC, RNP 10, RNP 4 and RNP 2 (continental and oceanic).	SAIOSEACG/1 States (TF) report to SAIOSEACG/2	BOBTFRG/3 Report re: WP/08. IATA presented its analysis results at the SAIOSEACG/1 and ATM SG/10.
		b. States requiring PBCS support to implement performance-based separation to develop its PBCS implementation plan, including expected date of implementation.	SAIOSEACG/1 States (TF) report to SAIOSEACG/2	BOBTFRG/3 Report re: WP/08. No update at the SIOSEACG/1

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		Activity	Completion Date	Remarks
	5	Develop Performance-based Communication and Surveillance (PBCS) Implementation Plan to support 30 NM longitudinal spacing on RNP 4 (or RNP 2) routes within Category R airspace.	To be determined States (TF) report to SAIOSEACG/2	States that require PBCS to support 30 NM longitudinal spacing: Bangladesh: To be determined. Sri Lanka: No information. India: Expected to be implemented in Chennai FIR in 2020; Mumbai FIR in 2023; and Kolkata FIR to be determined. Indonesia: Expected in 2023 as part of the new Jakarta ACC ATM system project. Malaysia: Expected in second quarter of 2022. Myanmar: To be determined.
	6	Implementation of RNP 4 (or RNP 2) routes within BOB airspace.	To be determined States (TF) report to SAIOSEACG/2	Subject to the implementation of PBCS.
	7	Agreement between States to implement 30 NM longitudinal spacing (or as close to the separation minima as practicable) on trial basis.	To be determined 1 March 2024	Updated at BOBTFRG/3: Subject to the implementation of PBCS.
Phase 2	8	Review the demand and capacity on the affected ATS routes.	To be determined 2025 (SAIOSEACG/4)	Subject to the trial implementation of PBCS.
	9	Identify solutions to integrate departing traffic from New Delhi with the BOBCAT traffic.	To be determined 2025 (SAIOSEACG/4)	
	10	Review the requirement to retain BOBCAT tool based on the increase in capacity utilising improved longitudinal spacing, taking into account forecast growth in air traffic.	To be determined 2025 (SAIOSEACG/4)	
	11	Make recommendations to SAIOACG on the future status of the BOBCAT tool.	To be determined 2025 (SAIOSEACG/4)	