INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE TWELFTH MEETING OF THE SOUTH CHINA SEA TRAFFIC FLOW REVIEW GROUP (SCSTFRG/12)

BANGKOK THAILAND, 11 – 12 NOVEMBER 2024

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

CONTENTS

APPENDIXES

INTRODUCTION

Meeting

1.1 The Twelfth Meeting of the South China Sea Traffic Flow Review Group (SCSTFRG/12) was held at Bangkok Thailand, from 11 to 12 July 2024.

Attendance

2.1 The meeting was attended by 40 participants from China, Hong Kong China, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand, United States of America, Viet Nam, IATA, IFATCA and ICAO.

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

Officers and Regional Office

3.1 Mr. Fu Yongqiang, Director of Sanya Area Control Center, Air Traffic Management Bureau, Civil Aviation Administration of China presided over the meeting throughout its duration as Chair of SCSTFRG.

3.2 Mr. Xu Zhi Feng, Regional Officer, Air Traffic Management (ATM) and Mr. Kwon Hyuk Jin, Regional Officer ATM, ICAO Asia and Pacific Regional Sub-Office were the Secretaries for the meeting.

Opening of the Meeting

4.1 Mr. Fu Yongqiang welcomed participants to the meeting.

4.2 On behalf of Mr. Tao Ma, Regional Director of ICAO Asia and Pacific Office, Mr. Xu Zhi Feng also welcomed participants to the meeting.

4.3 **DISCLAIMER:** The presentation of material in this report does not imply the expression of any opinion whatsoever on the part of ICAO, APANPIRG, the ATM Sub-Group of APANPIRG or SCSTFRG concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries.

Documentation and Working Language

5.1 The working language of the meeting and all documentation was English. There were twelve Working Papers (WP), three Information Papers (IP) and two Flimsies were considered by the meeting.

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

Draft Conclusions, Draft Decisions and Decisions of SCSTFRG − Definition

6.1 SCSTFRG recorded their actions in the form of Draft Conclusions, Draft Decisions and Decisions within the following definitions:

a) **Draft Conclusions** deal with matters that, according to APANPIRG terms of reference, require the attention of States, or action by the ICAO in accordance with established procedures;

b) **Draft Decisions** deal with the matters of concern only to APANPIRG and its contributory bodies; and

c) **Decisions** of SCSTFRG that related solely to matters dealing with the internal working arrangements of these bodies.

List of Decisions and Draft Conclusions/Decisions

7.1 List of Draft Conclusions/Decisions

Nil

7.2 List of Decisions

<table>
<tr><th colspan="3">Decision SCSTFRG/12-1: Modifications on SCS Priority Areas</th></tr>
<tr><td colspan="2">What: Modify the SCS Priority Areas to keep in line with the global expectations given by the AN-CONF/14, the Project 30/10 – Optimised implementation of longitudinal separation minima (AN-CONF/14).</td><td>Expected impact:
☐ Political / Global
☒ Inter-regional
☒ Economic
☒ Environmental
☒ Ops/Technical</td></tr>
<tr><td colspan="2">Why: clear requirements and goals have been given by the AN-CONF/14</td><td>Follow-up: ☐Required from States</td></tr>
<tr><td colspan="2">When: 11-Nov-24</td><td>Status: Draft to be adopted by SAIOSEACG</td></tr>
<tr><td colspan="3">Who: ☒Sub groups ☐APAC States ☐ICAO APAC RO ☐ICAO HQ ☐Other:</td></tr>
</table>

REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Agenda

Adoption of Agenda (WP/01)

1.1 The provisional agenda for the Meeting (WP/01) was adopted by the meeting. The List of Papers (IP/01) was noted.

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

The Outcome of the Relevant Meetings (WP/02)

2.1 Secretariat introduced the summary list of outcomes from The 14th ICAO Air Navigation Conference (AN-Conf/14), The Twelfth Meeting of the Air Traffic Management Sub-Group (ATM/SG/12), Fourteenth Meeting of the FANS Interoperability Team-Asia (FIT-Asia/14), and the Twenty-ninth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/29) relevant to the SCSTFRG.

Enhancement of Longitudinal Spacing on Ats Route P648 to 50NM (WP/03)

2.2 Malaysia presented the implementation of reduced horizontal separation for ATS Route P648 from the conventional 10 minutes to 50 NM separation. The meeting noted that Malaysia remained steadfast in its commitment to address the increase in capacity. In line with Action Item 9/3 (c) of the SCSTFRG Task List, which aims to enhance the longitudinal spacing on the ATS route P648 to 50NM, proactive steps have been taken on this matter.

2.3 As the background was conventional 10-minute longitudinal separation was previously used for traffic using ATS route P648. Malaysia, in collaboration with Indonesia, has achieved a significant milestone by successfully implementing the 50 NM longitudinal separation between pairs of applicable aircraft, marking a substantial improvement in airspace management.

2.4 The limitation also been introduced, the application of 50 NM separation on ATS routes P648 is applicable for pairs of RNP10-approved aircraft on the same track with no closing speed. It should be noted that this reduced longitudinal separation is not applicable between a pair of flights travelling beyond Jakarta FIR or Kinabalu FIR.

2.5 Besides, Malaysia also presented a proposal for related States/Administration to collaborate and further review and optimize the ATS route network within the South China Sea (SCS). ICAO encouraged Malaysia to explore further the possibility of 30 NM based on RNP4 capacity in the near future to cope with the ICAO global 30/10 projects.

Implementation of 50NM longitudinal Separation on M768 (WP/04)

2.6 Indonesia, Malaysia, Singapore and Viet Nam jointly presented an update on the implementation of 50NM longitudinal separation for ATS route M768. ATS route M768 traverses the Ho Chi Minh, Kota Kinabalu, Singapore and Ujung Pandang FIRs, each of which has different operational requirements for longitudinal spacing. It was thus important for States to develop a coordinated implementation timeline and harmonised set of coordination procedures.

2.7 Improvements in the navigation performance of aircraft facilitated opportunities for

Indonesia, Malaysia, Singapore, and Viet Nam to implement initiatives to improve efficiency. On 13 March 2024, the four States agreed on coordination procedures for the application of 50NM longitudinal separation on ATS route M768.

2.8 It was introduced that a two-month trial was conducted from April to June 2024 based on the agreed coordination procedures. Throughout the trial, no negative feedback was received from airlines. Feedback from the respective ATS units was thoughtfully discussed and addressed in subsequent follow-up meetings. Following the successful trial, 50NM longitudinal separation on ATS route M768 was implemented across Ho Chi Minh, Kota Kinabalu, Singapore and Ujung Pandang FIRs from June 2024 onwards with no further issues.

Enhancement of longitudinal spacing on ATS route M761 (IP03)

2.9 Indonesia, Malaysia and Singapore jointly presented the updates regarding SCSTFRG task list action item 2/4 about enhancement of longitudinal spacing on ATS route M761 between Indonesia, Malaysia and Singapore.

2.10 Concurrent with the realignment of the boundary between the Jakarta Flight Information Region (FIR) and the Singapore FIR, the delegation of the provision of ATS to Singapore and joint provision of ANS by Indonesia and Singapore within portions of the realigned Jakarta FIR has been effective from March 21st 2024. With the change to the FIR boundary, Indonesia updated the ATS coordination procedures with Singapore for flights operating between Singapore and Jakarta FIR, and with Malaysia, for flights operating between Jakarta and Kota Kinabalu FIR.

2.11 Indonesia's airspace within the realigned Jakarta FIR is categorized as category S airspace. Therefore, Indonesia coordinated with Singapore and Malaysia to enhance longitudinal spacing on M761 into 20 NM surveillance spacing.

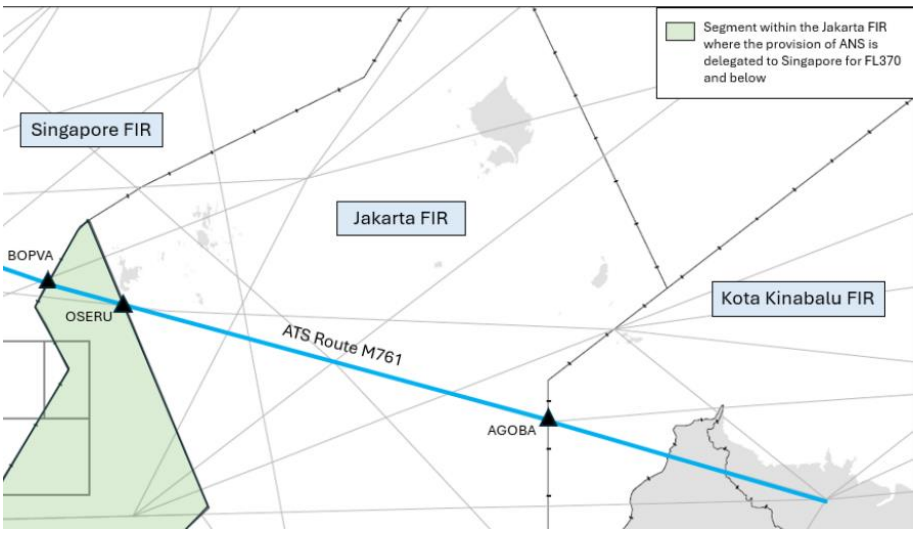


Figure X:ATS Route M761 after the realignment of Jakarta and Singapore FIRs

2.12 ICAO thanked the joint efforts to reduce longitudinal spacing into 20 NM surveillance spacing on ATS route M761 demonstrate support and commitment for the objectives of the ICAO Asia Pacific Seamless ANS Plan.

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

Traffic Sample Data Visualization Over South China Sea (WP/05)

3.1 The Monitoring Agency for Asia Region presented the updated visualization of traffic flow over South China Sea airspace, based on Traffic Sample Data (TSD) from 2018 to 2023. The visualization and the number of flights aims to assist the SCSTFRG in reviewing the route structure and traffic flow in this airspace.

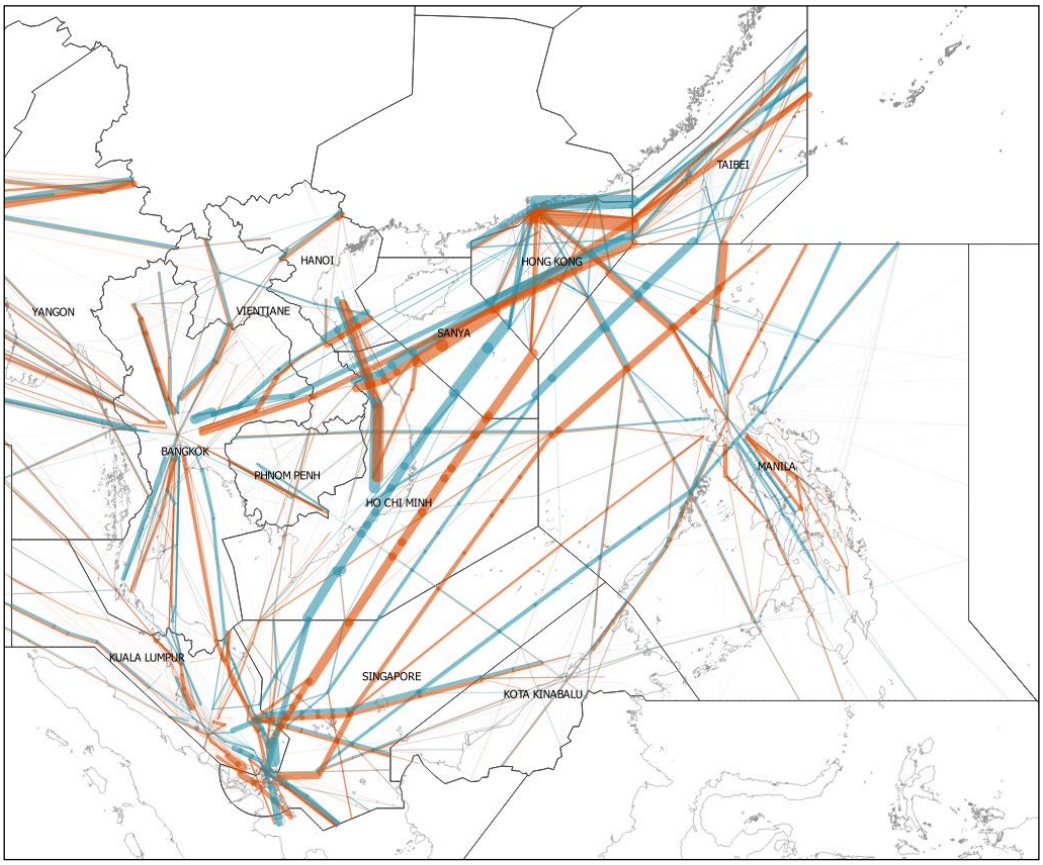
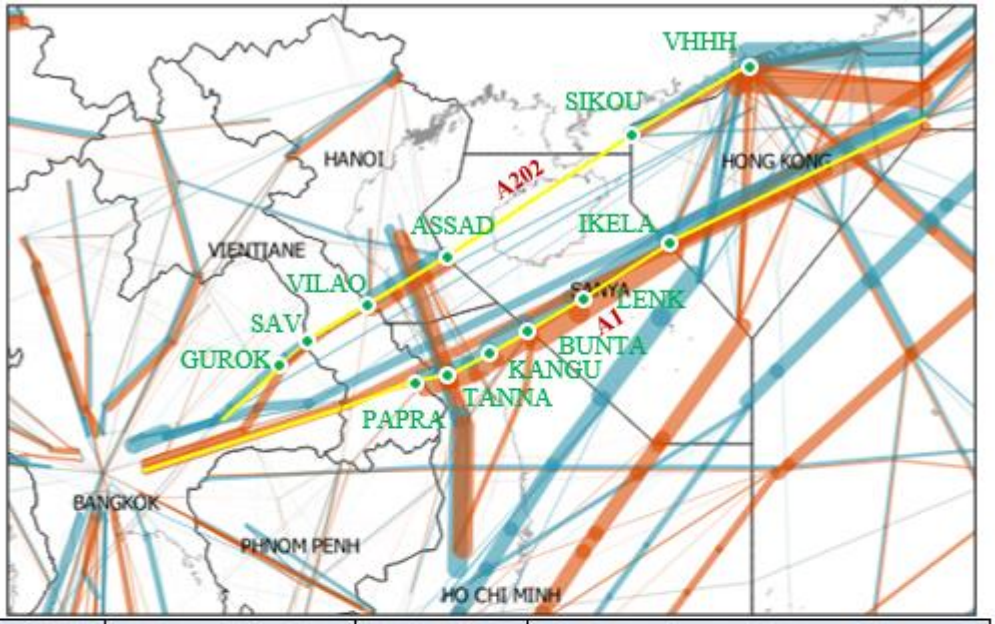


Figure 1: 2023 Traffic Flow from TSD in South China Sea Airspace

3.2 In coordination with the ICAO Asia and Pacific Regional Sub-Office prior to SCSTFRG/12 meeting, MAAR also made efforts to make the comparison of flight numbers on the important routes, including A1, A202, L642, M771, N892, L625, M646, A583, A461, N884, A582, M767 and M758, based on TSD from 2018 to 2023.



Route	Portion	Direction	The number of flights					
			2018	2019	2020	2021	2022	2023
A202	GUROK to SAV	Eastbound	5689	2453	282	531	226	1414
A202	VILAO to ASSAD	Eastbound	7143	3414	496	678	764	2499
A202	SIKOU to VHHH	Eastbound	3466	1435	431	492	649	1190
A202	VHHH to SIKOU	Westbound	4639	1942	1040	3	1443	2339
A202	ASSAD to VILAO	Westbound	6573	3371	527	688	893	2645
A202	SAV to GUROK	Westbound	6132	2887	410	681	148	1411
A1	PAPRA to TANNA	Eastbound	6675	4176	734	945	2078	2993
A1	KANGU to BUNTA	Eastbound	6705	4190	734	945	2075	2940
A1	LENKO to IKELA	Eastbound	9505	4833	1367	1602	3244	4550
A1	IKELA to LENKO	Westbound	8681	3448	1007	1088	2038	2943
A1	BANTA to KANGU	Westbound	7204	3758	849	964	2179	3796
A1	TANNA to PAPRA	Westbound	7198	3744	849	963	2157	2844

Figure 2: The number of flights in the South China Sea airspace based on Traffic Sample Data (TSD) from 2018 to 2023 Route A202 and A1

3.3 The Group thanked MAAR for making an effort to provide valuable data analysis to support the meeting discussion. China committed to providing TSD to MAAR to enrich the database.

3.4 In response to an inquiry, it was clarified that the TSD was based on the December's data submitted by ANSPs, and for the annual data, it was too massive work to collect. MAAR has committed to optimize further the data analysis based on the suggestions and requirements from stakeholders. And because of time constrains, the TSD for 2024 would be able to present at the SCSTFRG/13.

Progress review of SCSTFRG Priority Areas (WP/06)

Priority Area 1: A1/A202

3.5 Action items under this Priority Area were to enhance the longitudinal spacing on ATS route A1 and A202 to 20 NM, and develop a parallel route to A1.

3.6 To establish Parallel Routes for A1, the major divergence among stakeholders is the

direction of the route. As Hong Kong China and Thailand supported China's original proposal, shown in the Figure X below. Viet Nam insisted on using reversed orientation on these two proposed parallel routes.

Figure 3: SCSTFRG/11 China Proposed parallel uni-directional routes (Within Sanya FIR)

3.7 Further discussion on this topic was based on the WP/13, *Economic Impact of Delayed Capacity Enhancements for Southeast Asia – Northeast Asia Traffic Flow and Alternate A1 Parallel Route Structure Usage Plan***,** presented by Thailand.

Priority Area 2: L642/M771

3.8 Reference SAIOSEACG/2 and SCSTFRG/11 conducted in 2023, all concerned States/Administrations, i.e. China, Singapore, Vietnam and Hong Kong China expressed full support in implementing 20NM longitudinal spacing on L642 and M771. During SAIOSEACG/3 in April this year, the trial operation proposed by Hong Kong China for this initiative was agreed upon as a result. The trial operation was successfully launched on 7 May 2024 as scheduled.

3.9 As Hong Kong, China reported to the ATM/SG/12 (Bangkok Thailand, 23-27 September 2024), The agreement during SAIOSEACG/3 stipulated that 20NM minimum longitudinal spacing would be applied on L642 and M771 from 0200 to 1200 UTC daily during the trial period.

3.10 At the meeting, Hong Kong China informed the meeting that the trial operation will be extended until further notice in order to collect sufficient data. And the outcome will be reported to SAIOSEACG/4 March 2025.

Priority Area 3: A461/A583/L625/N892

3.11 The action item was to enhance the longitudinal spacing on ATS routes A461, A583, L625, and N892 to at least 50 NM, with planning for 30 NM or less. Updates from SCSTFRG/11 was been recorded as following:

- A461 & M501: Phase 1 and 2 implementation of the 30NM minimum longitudinal spacing on A461 and M501 was completed in February 2023. The enhanced spacing applies to traffic pairs with RNP4 capability at FL290 or above when the longitudinal spacing is constant or increasing. If the succeeding aircraft is faster than the preceding aircraft, 50NM/10MIN will be applied, depending on the aircraft destination aerodromes. The operation has been smooth since implementation. Not only has the

capacity of ATS routes A461 and M501 significantly increased, but there have also been more aircraft assigned with optimum cruising levels.

- A583: With the satisfactory outcomes of Phases 1 and 2, Hong Kong ATCC and Manila ACC proceeded to the Phase 3 implementation for applying the 30NM minimum longitudinal spacing on ATS Route A583. The enhanced spacing applies to traffic pairs with RNP4 capability, CPDLC and ADS-C equipage at FL290 or above when the longitudinal spacing is constant or increasing. If the succeeding aircraft is faster than the preceding aircraft, 50NM/10MIN will be applied, depending on aircraft destination aerodromes. A new Letter of Agreement between Hong Kong ATCC and Manila ACC was signed in September 2024 to officially incorporate these enhancements into the Agreement.

- N892 & L625: The Philippines confirmed that the implementation of 50NM longitudinal spacing was under internal assessment and will be re-initiated soon. 30NM has also been taken into consideration.

Priority Area 4: Review of Existing FLAS/FLOS Operating within the South China Sea

3.12 The discussion on this topic was covered under the WP07 Review of the existing FLAS/FLOS in the South China Sea Airspace in Agenda Item 4 of this meeting.

3.13 As clear requirements and goals have been given by the AN-CONF/14, the *Project 30/10 – Optimised implementation of longitudinal separation minima (AN-CONF/14)*, which gives the SCSTFRG the necessity to re-consideration of the existing priority areas, especially the Priority Area 1, 2 and 3. The meeting is invited to consider the following suggestions for the modifications of SCS Priority Areas:

Decision SCSTFRG/12-1: Modifications on SCS Priority Areas

That, modify the SCS Priority Areas to align with the global expectations given by the AN-CONF/14, the Project 30/10 – Optimised implementation of longitudinal separation minima (AN-CONF/14).

a) **Priority Area 1: A1/A202** to reduce longitudinal spacing to at least 20 NM with planning for 10 NM and to develop a parallel route to A1.

b) **Priority Area 2: L642/M771** to reduce longitudinal spacing to at least 20 NM with planning for 10 NM and to explore the possibility of implementing parallel routes for L642 and M771 afterwards.

c) **Priority Area 3: A461/A583/L625/N892** to reduce longitudinal spacing to 30 NM ~~at least 50 NM with planning for 30 NM or less~~.

d) **Priority Area 4: Review of existing Flight Level Allocation Scheme (FLAS)/ Flight Level Orientation Scheme (FLOS) operating within the South China Sea (SCS)**.

Economic Impact of Delayed Capacity Enhancements for Southeast Asia – Northeast Asia Traffic Flow and Alternate A1 Parallel Route Structure Usage Plan (WP/13)

3.14 Thailand reminded the meeting of the University of Westminster study conducted in 2004, which was updated in 2015, that the economic impact of ATFM delays is estimated to be 100 EUR per minute

3.15 Consequently, based on the ATFM measure implemented for eastbound departures from Thailand on A1 between April and September 2024, the aviation community related to eastbound departures from Thailand incurs approximately 187,000 minutes of ATFM delay annually, resulting in an economic cost of 18.7 million EUR or 20 million USD annually.

3.16 Thailand further emphasized that, since A1 departures from Viet Nam are of comparable magnitude to departures from Thailand, the economic impact of delayed implementation of A1 capacity enhancements incurred by the aviation community in Viet Nam should be similar to that incurred by departures from Thailand, approximately 20 million USD annually.

3.17 Continual the discussion on the Priority Area 1 of SCSTFRG, Thailand carried out a conservative economic impact of delayed capacity enhancements for Southeast Asia – Northeast Asia traffic flow and proposes an alternate usage of the proposed A1 parallel route structure.

3.18 It was stressed by Thailand that Since it has been eight years since A1 parallel route structure was last proposed, Thailand could not afford to wait for regional solution to accommodate Southeast Asia – Northeast Asia traffic increase. Accordingly, domestic parallel route structure supplementing A1 route segments in Thailand (Y16 – BKK-BUTRA) was implemented in December 2016 to streamline management of eastbound departures from Bangkok or overflying Bangkok. The domestic parallel route structure mentioned is illustrated in **Figure 4**.

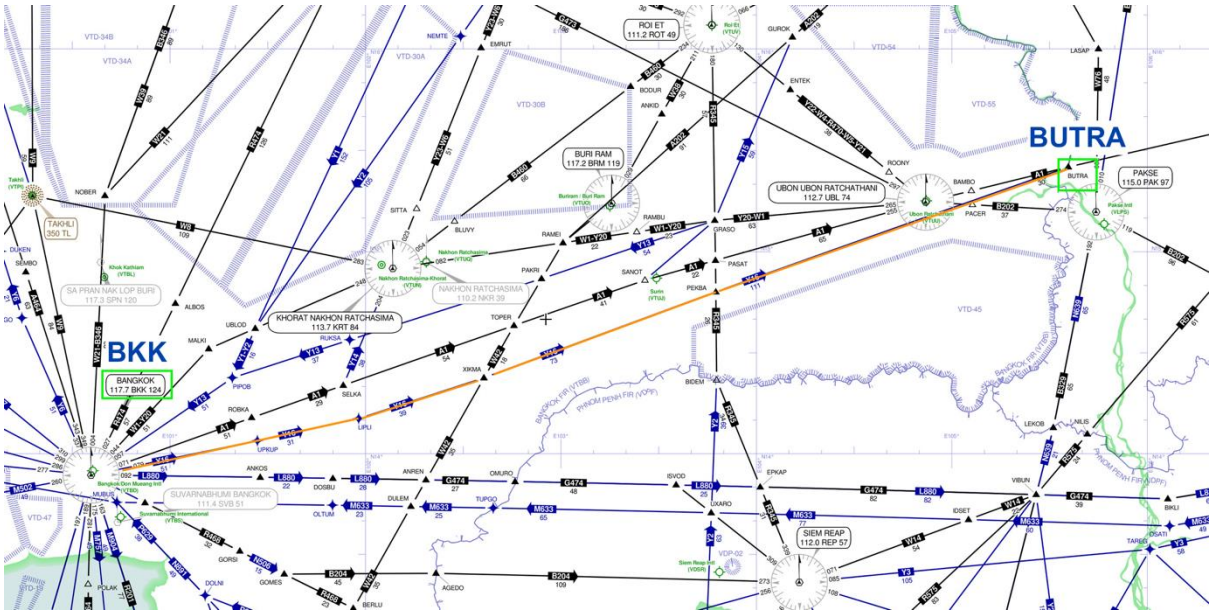


Figure 4: Domestic Parallel Route Structure Supplementing A1(Y16) within Thailand Airspace (Dec 2016)

3.19 Based on the current situation, Thailand propose the following alternate route direction usage as illustrated in **Figure 5**.

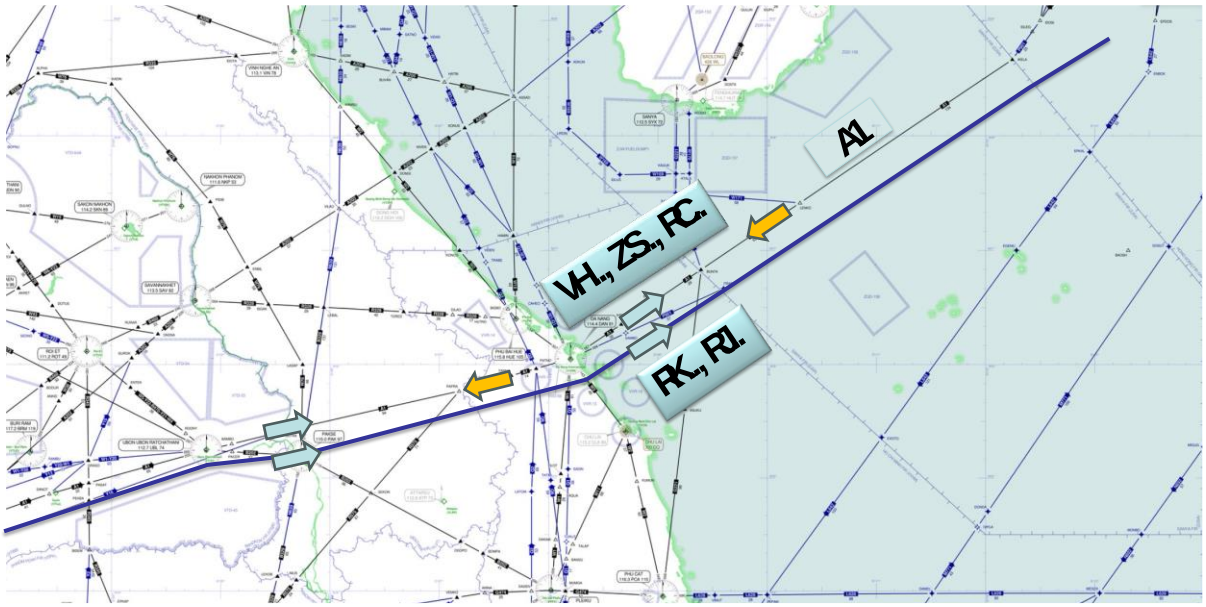


Figure 5**: Proposed Alternate A1 Parallel Route Structure Utilization Scheme**

3.20 There was a positive discussion at the meeting regarding this issue. Hong Kong China prefer to retain its previous opinions on the orientation of the proposed parallel routes, which is also supported by China. Thailand emphasised that the original proposal was the optimal choice, but the new proposal was a compromise solution based on the current situation.

3.21 In response to China, Hong Kong, China and Thailand, Viet Nam reiterated the impact of the original proposal (seconded by China, Hong Kong China and Thailand) on the traffic patterns of Da Nang airports. They also informed the meeting for the new proposal by Thailand that further assessment and analysis were needed and they would get back to the ICAO Regional Sub-office in a short time.

Establishing a Coordinated Rerouting Framework in the South China Sea Area (Flimsy/01)

3.22 China proposes a strategic roadmap for enhancing air traffic service (ATS) capabilities in the South China Sea region. Given the high growth and critical importance of this airspace for Asia-Pacific aviation, a comprehensive roadmap that integrates the unique operational characteristics and requirements of the region is vital. This roadmap outlines a shared vision, phased implementation stages, and fundamental principles to build collaborative, seamless air traffic services (ATS) that address both traffic flow and capacity needs. It aims to unify ATS capabilities across the region, aligning with ICAO's No Country Left Behind (NCLB) initiative, and thereby optimize air traffic management and safety.

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

Review of the Existing FLAS FLOS in South China Sea Airspace (WP/07)

4.1 This paper presented the considerations when reviewing the existing FLAS/FLOS operation and No-PDC FL in various FIRs of the South China Sea area. All Member States/Administrations were invited to review the data and provide feedback on their current FLAS/FLOS operations to the ICAO Secretariat to improve the capacity, efficiency and safety.

4.2 The meeting was recalled At SCSTFRG/10 meeting, to facilitate the discussion on the existing FLAS/FLOS to promote the long-term consideration of post-pandemic scenarios, the group agreed to the ***Decision SCSTFRG/10-1: Review of the existing South China Sea Flight Level***

Allocation Scheme (FLAS) and Flight Level Orientation Scheme (FLOS) .

4.3 Through the updated data submitted by South China Sea States/Administrations prior to the meeting and updated by the Philippines at the meeting, the ICAO APAC Regional Sub-Office has corrected the data from the previous version of the Chart to provide an overview of the FLAS currently operating in the South China Sea airspace among the major routes, as illustrated in **Chart 1**.

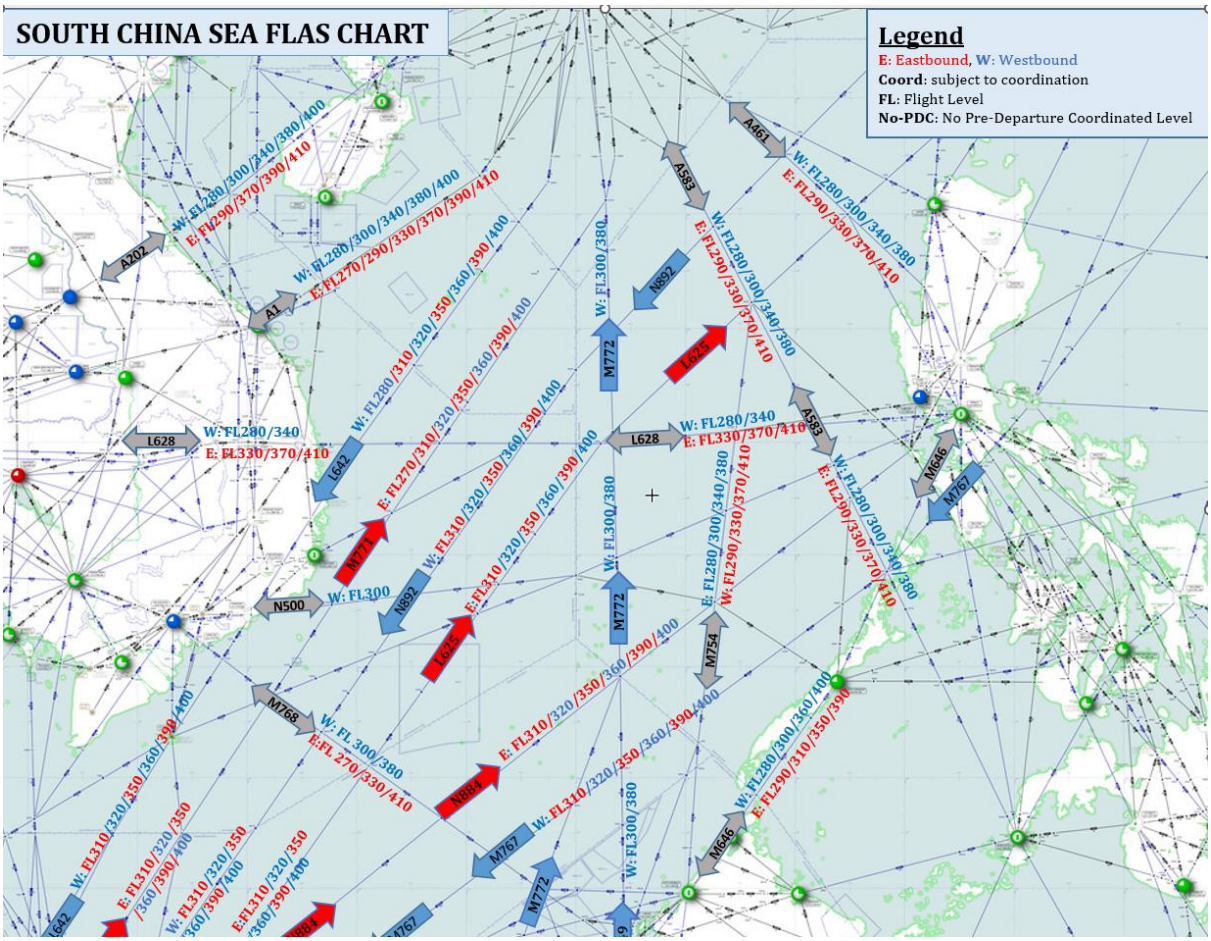


Chart 1: FLAS/FLOS among the ATS Routes (updated November 2024)

4.4 This group have noted the interconnectivity of the airspace structure and FLAS/FLOS system. In years of operation, ACCs have become accustomed to this FLAS system, and derived to relatively mature risk response plan, such as the Large Scale Weather Contingency Plan and flexible temporary coordination mechanism. In fact, the current FLAS system has been proven to be reliable, but the following drawbacks should be taken into consideration:

- The reduction of fuel efficiency and increment of carbon emission because of the unavailability of the optimal cruising level, especially on the secondary routes.
- Frequent flight-level changes to accommodate the FLAS requirements among different route segments.
- High demands of extra coordination, causing an increase in the ATCOs' workload, especially in adverse weather conditions.
- Lack of flexibility, some of the secondary crossing routes are now busier than the primary routes compared with the original concept, timely adjustment is necessary.

- Human factors issues. Systemic risks resulting from the switching from normal FLAS to Large-Scale Detour Procedure, lead to the high possibility of coordination errors in the ATC-to-ATC transfer of control responsibility.
- Safety issues caused by the transition from non-standard FLOS levels to standard FLOS levels at the TOC points, especially at the boundary of the SCS area.
- Excessive longitudinal separation increased the reliance on vertical separation to separate the traffic, leading to insufficient use of limited flight Levels, significantly contributing to the shortage of flight-level resources.
- The capability and efficiency of current FLAS might be insufficient to cope with future traffic growth.

4.5 In view of the above-mentioned facts, the goal for the SCSTFRG should be the removal of FLAS in the SCS area to meet the *APAC Seamless ANS Plan*'s expectations. This cannot be achieved without a systematic and holistic roadmap supported by all stakeholders. Optimisation of FLAS/FLOS operation) cannot be considered an isolated project; it has significant interconnectivity with the SCSTFRG Priority 1, 2 and 3 (reduction of longitudinal separation on primary routes). Horizontal efficiency and vertical efficiency are highly correlated and relevant to one another.

4.6 A possible roadmap of the SCS FLAS dilemma were suggested by ICAO, mindful of the above aspects, some thoughts based on IFATCA's original proposal at the SCSTFRG/7, the review of existing FLAS and FLOS operating within the SCS could be conducted in six phases:

- *Phase 1: Revision of FLAS on selected ATS routes*

  Re-allocation of two of the six flight levels on the primary routes M767/N884, L625/N892 (one eastbound and one westbound flight levels) to the secondary crossing routes A461, A583, M758 and M761. The remaining four flight levels on the primary routes would provide adequate capacity under normal circumstances to satisfy the traffic demand. The additional capacity that one flight level in each direction on the secondary crossing routes would relieve some of the delays and restrictions that are currently imposed on traffic.

- *Phase 2: Reduction of longitudinal separation*

  Reduce longitudinal separation (operationalization of 5-10NM ATC separation, 10-20 NM separation at Transfer of Control Points (TOC)) among ATS routes, especially for primary routes, which occupy the majority of flight level resources as soon as possible. As a result, the capacity of the ATS route will be significantly increased, and the demands of flight level will be released by such an increase.

- *Phase 3: Release flight level on selected ATS routes and revision of non-standard FLOS*

  Release flight levels on selected ATS routes, which are supported by the aforementioned capacity increment. Revision of the FLOS on the primary routes L625/N892 and M767/N884, from the SCS modified single alternate FLOS to the standard FLOS (Annex 2, Appendix 3a) would serve the purpose of removing the need to transition flights in the Manila FIR.

- *Phase 4: Reshuffle the FLAS or flexibly use FLAS*

  Dynamically adjust the FLAS system in a scientific method.

- *Phase 5: Partial removal of FLAS*

  Gradually reducing dependence on FLAS systems. Suspended the FLAS operating in normal situations, and only activated it in adverse weather or contingency conditions.

- *Phase 6: Re-structure the SCS Route Network and Removal of FLAS*

  Re-structure the South China Sea Airspace using RNAV 2/ RNP 2 – near parallel or parallel routes. Explore the possibility of cross-border FRA (Free Route Airspace) Operation.

Current and Future SCSTFRG Tasks (WP08)

4.7 IFATCA presented a brief overview of the past work of SCSTFRG and the outcomes of the completed tasks and the status of some ongoing work that will be discussed further at this meeting. It then presents some thoughts on the future direction the Group could consider when reviewing the SCS FLAS/FLOS issue which is the remaining item on the Group's task list.

4.8 As summarised by IFATCA, the SCSTFRG after 11 meetings, the status of these tasks is shown in the following Table 1.

Area	Routes	FIRs Involved	Status 2024
1	A1	Bangkok, HoChiMinh, Sanya, Hong Kong, Vientiane	**20NM spacing implemented in 2020**
	A1 parallel route	Bangkok, HoChiMinh, Hong Kong, Sanya, Vientiane	On going discussion, waiting for a decision from one State
2	L642/M771	Singapore, HoChiMinh	**20NM spacing implemented in 2018**
		HoChiMinh, Hong Kong, Sanya	**20NM spacing implemented in 2024**
		HoChiMinh, Hong Kong, Sanya, Singapore	Hong Kong considers with revised spacing additional parallel route not required at this time. No further work at this time
3	A461/A583	Hong Kong, Manila	**50NM spacing implemented 2019**
	A461	Hong Kong, Manila	**30NM spacing implemented 2023**
	A583	Hong Kong, Manila	**30NM spacing implemented 2024**
	L625/N892	Manila, Singapore	Reduction of spacing postponed
4	All	All	Initial discussion

Table 1: Summary on SCSTFRG Tasks.

4.9 It was pointed out that replacing non-standard procedures with current published ICAO compliant practices could be a lengthy process. Based on past experience, it could take another 10 years to agree on ways to revert to compliant ATM procedures. Therefore, instead of looking at current problems and trying to resolve them with existing solutions, perhaps we should be looking to the future with ways to design out all the non-standard procedures by utilising the advantages the new systems and processes will provide. The Regional Office already has a comprehensive programme of SWIM and FF-ICE meetings, seminars and workshops describing how TBO, UPR and FRA will change the way ATM will be delivered within the Region within the coming 10 years.

4.10 It was suggested by IFATCA the SCSTFRG could become a catalyst in what is currently a primarily technical-led programme for the introduction of new ATM services in the operational field. The Group could become a conduit for a multi-State project in airspace away from the oceanic or remote airspace that provide a less challenging environment for new procedures, including TBO, UPR, and

FRA practices.

4.11 IFATCA presented a conceptual plan for the introduction of FRA in the SCS to replace the current complex airspace structure and the removal of the non-standard FLAS/FLOS procedure. The proposal was based on the Japan CARATS plan with a vertical split of airspace at FL335. This would enable the phased introduction of FRA in the upper area with ICAO compliant ATM practices in accordance with the Asia/Pacific Seamless ATS Plan.

Review of Selected ATS Route Proposals from the Asia Pacific Region ATS Route Catalogue (WP/09)

4.12 Relevant ATS Route Proposals concerned by SCSTFRG were been selected from the Version 24.0 of the *Asia Pacific Region ATS Route Catalogue* for review and discussion by the meeting. The feedback and updates were recorded as follows:

- **SCS 11**: Malaysia has engaged with local airlines operating in the area and confirmed that they are ready for RNAV2/RNP4. Further discussions with the relevant states are scheduled to take place in Q1 2025.
- **Viet Nam 02:** Viet Nam expressed that they have been continuously discussing the implementation of this route with China.
- **SCS 19:** Thailand informed that they already submitted PfA to ICAO.
- **SCS 20-23:** Malaysia has informed that the proposals are currently under review by Indonesia. Malaysia has proposed bilateral discussions on these proposals, and the outcomes of these discussions will be communicated to ICAO.
- **MEKONG 01:** Further information will be provided after Mekong-ATMCG meeting (27-28 November 2024).

Agenda Item 5: Review of SCSTFRG Task List

SCSTFRG Terms of Reference and Task List (WP/10)

5.1 ICAO presented WP/10, which contained the SCSTFRG Terms of Reference for review and the SCSTFRG Task List for updating (**Appendix C**).

Agenda Item 6: Decisions/Recommendations to SAIOSEACG

Review the South China Sea Operational Concept (WP/11)

6.1 To enhance safety and harmonise Air Traffic Management (ATM) procedures in accordance with the *APAC Seamless ANS Plan* and take advantage of the communications and surveillance capabilities in the SCS. The ***South China Sea Operational Concept*** was developed by SEACG/23 and agreed upon by ATM/SG/4, then subsequently adopted by APANPIRG (APANPIRG/27, Bangkok, Thailand, 5 - 8 September 2016).

6.2 The Fourteenth Air Navigation Conference (AN-CONF/14) was held at Montreal, Canada,

from 26 August to 06 September 2024. The Conference provided detailed technical discussions that led to agreement on a set of high-level recommendations in the field of air navigation and safety. Following the AN-CONF/14, SCSTFRG/12 is an appropriate time for this original concept to be revised and updated to align with the current stage of global development and the latest version of the ***Asia/Pacific Seamless ANS Plan*** (Version 4.0).

6.3 The suggestions from the meeting discussion for the revision of the *South China Sea Operational Concept* were been appendix at the **Appendix D** of this report.

Agenda Item 7: Any Other Business

Initiative for Improvement Effective Stakeholder Engagement (IP/02)

7.1 Malaysia introduced the proactive steps taken by Malaysia to cultivate strategic collaboration and partnerships among various stakeholders within the local aviation industry. The primary objective of these initiatives is to ensure and enhance the overall benefits for airspace users.

7.2 To foster effective communication and an in-depth understanding of technical and operation aspects, Malaysia has initiated a CAAM Stakeholder Engagement Committee (CSEC) platform. This platform serves as a bridge for comprehensive engagement and collaboration between CAAM and its local stakeholders, ensuring a thorough and well-rounded approach to addressing the needs of all involved parties in the air navigation services sector.

7.3 It was also mentioned that the response from local stakeholders has been exceedingly positive, accompanied by valuable suggestions, which have garnered substantial enthusiasm. This collaborative initiative is anticipated to foster the development of an improved solution for airspace users. This pivotal annual engagement has established a comprehensive framework that promises to bring significant benefits to both local and foreign airlines operating within the Kuala Lumpur FIR and Kota Kinabalu FIR, as well as the region in general.

Implementation Roadmap for Seamless Air Navigation Services in the South China Sea Area (Flimsy/02)

7.4 This paper proposes a strategic roadmap for enhancing air traffic service (ATS) capabilities in the South China Sea region. Given the high growth and critical importance of this airspace for Asia-Pacific aviation, a comprehensive roadmap that integrates the unique operational characteristics and requirements of the region is vital. This roadmap outlines a shared vision, phased implementation stages, and fundamental principles to build collaborative, seamless air traffic services (ATS) that address both traffic flow and capacity needs. It aims to unify ATS capabilities across the region, aligning with ICAO's No Country Left Behind (NCLB) initiative, and thereby optimize air traffic management and safety.

Update on the Amendment Concerning Separation Minima Based on an ATS Surveillance System to the PANS-ATM (Doc 4444) (Flimsy/03)

7.5 As mentioned by Thailand at the meeting, ICAO updated on the amendment concerning separation minima based on an ATS surveillance system to the PANS-ATM (doc 4444). A new provision that prescribed in PANS-ATM Paragraph 8.7.3.3 *"where the communications system used satisfies RCP 240, a horizontal separation minimum based on an ATS surveillance system of 28 km (15 NM) may be applied"* has been introduced to the meeting.

Agenda Item 8: Date and Venue of the Next Meeting

8.1 The SCSTFRG/13 was tentatively planned in June 2025 at the APAC Regional Sub-office.

Closing of the Meeting

The Chair thanked the meeting participants for their significant work during a busy meeting program.
