



ICAO

International Civil Aviation Organization

**Thirty-Second Meeting of the Asia/Pacific Air Navigation  
Planning and Implementation Regional Group  
(APANPIRG/32)**

*Video Teleconference, 1 – 3 December 2021*

*Schedule: 10:00 – 13:15 Bangkok Time [UTC+7]*

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**Agenda Item 3: Performance Framework for Regional Air Navigation Planning and Implementation**

**3.2: ATM**

**ATM/SG/9 OUTCOMES**

(Presented by the ATM/SG Chair)

**SUMMARY**

This paper provides a summary of the key outcomes from the Ninth Meeting of the Air Traffic Management Sub-Group (ATM/SG/9) and its contributory bodies. One Draft Conclusion and two Draft Decisions are presented for consideration by APANPIRG/32.

*Strategic Objectives:*

**A: Safety** – Enhance global civil aviation safety

**B: Air Navigation Capacity and Efficiency** — Increase the capacity and improve the efficiency of the global aviation system

**E: Environmental Protection** — Minimize the adverse environment effects of civil aviation activities.

**1. INTRODUCTION**

1.1 The Ninth Meeting of the Air Traffic Management Sub-Group (ATM/SG/9) of the Asia Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) was held by Video Teleconference (VTC) from the ICAO Asia and Pacific Regional Office, Bangkok, Thailand.

1.2 The meeting was attended by 292 registered participants from 27 States, two Special Administrative Regions of China and six International and Air Traffic Management-related organizations, including Afghanistan, Australia, Bangladesh, Bhutan, Brunei Darussalam, China, Hong Kong China, Macao China, Fiji, India, Indonesia, Japan, Kiribati, Lao People's Democratic Republic (PDR), Malaysia, Maldives, Mongolia, Myanmar, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea (ROK), Singapore, Sri Lanka, Tajikistan, Thailand, USA, Viet Nam, CANSO, IATA, IFAIMA, IFALPA, IFATCA, and ICAO.

1.3 The ATM Sub-Group met as a virtual plenary meeting. The working language of the meeting was English for all documentation and this Report. A total of 36 Working Papers (WPs), ten Information Papers (IPs), three flimsies and three presentations were considered by the meeting.

1.4 The full ATM/SG/9 meeting report and all associated papers and presentations are available on the ICAO Asia/Pacific (APAC) Regional Office website at:

<https://www.icao.int/APAC/Meetings/Pages/2021-ATM-SG-9.aspx>

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

## 2. DISCUSSION

### RASMAG/26 Outcomes

2.1 ICAO provided a summary to ATM/SG/9 of the outcomes from the Eleventh Meeting of the FANS Interoperability Team-Asia (FIT-Asia/11, VTC, 23 to 26 August 2021) and the Twenty-Sixth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/26, VTC, 20 to 23 September 2021).

2.2 The RASMAG Chair had presented a paper to RASMAG/26 addressing an action item from the 14<sup>th</sup> Meeting of the Regional Monitoring Agencies Coordinating Group (RMACG/14), which asked all RMAs to request clarification from their respective PIRGs on responsibilities of the RMA regarding verification of the approval status of State aircraft (military and other government aircraft performing non-commercial, sovereign functions) and their relation to civil authorities. ‘Rogue’ aircraft (those that included ‘W’ in flight plans but did not have matching RVSM approval) that persistently remained on the list were mostly State aircraft. In order for the rogue State aircraft to be removed from the list either the State aircraft’s approval data had to be provided to the designated RMA, or the State aircraft operator had to stop using ‘W’ in item 10 of the ICAO flight plan.

2.3 The following Draft Conclusion proposed by RASMAG/26 was not endorsed by the ATM/SG/9 meeting.

#### ***Draft Conclusion RASMAG/26-3: RVSM Approvals Data and Filing of RVSM Indicator in Flight Plans of State Aircraft***

*That, States are urged to:*

1. *liaise with their State aircraft operators to:*
  - a. *share State aircraft RVSM approval data with the designated RMA where State aircraft RVSM approval processes are implemented;*
  - b. *confirm the RVSM approval status of State aircraft when queried by the RMA; and*
  - c. *not file ‘W’ in item 10 of the ICAO flight plan of aircraft that are not approved for RVSM; and*
2. *respond to a survey on RMA and State responsibility on the matter of RVSM approvals of State aircraft.*

2.4 While noting the need for RVSM approval for all aircraft that included the RVSM indicator in flight plans, for the safety of operations in the airspace, the ATM/SG/9 meeting considered that there would be considerable difficulty in sharing data on State aircraft outside the State. Items 1a. and 1b. of the Draft Conclusion were not supported by ATM/SG, but the remainder was acceptable.

*Note: The States that expressed non-support of the Draft Conclusion at ATM/SG/9 were present at the RASMAG/26 meeting and had supported the Draft Conclusion at that time. This Draft Conclusion is presented for APANPIRG/32 consideration under Agenda Item 3.3.*

#### Seamless ANS Plan and Monitoring Update

2.5 The meeting was informed of the current status of *Asia/Pacific Seamless Air Navigation Services (ANS) Plan* (formerly the Seamless ATM Plan) reporting, and the implementation progress of air navigation improvements in the APAC Region. Due to the lack of a current reporting system the ICAO Regional Office was not able to update the current implementation status; the reporting portal had not been updated to match the 6<sup>th</sup> Edition of GANP and the current Version 3.0 of the Seamless ANS Plan. Implementation status information provided in the paper was as of March 2019, and therefore unchanged since reported to ATM/SG/8 in 2020. The meeting was reminded of **APANPIRG Conclusion 30/6 - ICAO HQ Support for Regional ANS Implementation**.

2.6 The meeting was reminded that implementation of the ten priority regional targets for Phase I of the Seamless ANS Plan (November 2015 to November 2019) had in general not been achieved. There were now 16 priority ASBU Block 0 and Block 1 and regional elements.

2.7 Information was provided on the need for States to develop a National Air Navigation Plan (NANP) as detailed in Section 9 of the Seamless ANS Plan and included among the *specific regional requirements* of the Regional Air Navigation Plan (ANP) Vol II. To align with other APAC plans that were subsidiary to the Seamless ANS Plan the Regional Office had developed a NANP reporting form.

2.8 The following Draft Conclusion was proposed, introducing a NANP reporting form for use by States and APANPIRG to track NANP implementation progress.

#### ***Draft Conclusion ATM/SG/9-X: National Air Navigation Plan Reporting Form***

*That, the National Air Navigation Plan Reporting Form at Attachment A be adopted, and uploaded to the ICAO Asia/Pacific Regional Office Website. States are urged to report the status of NANP at least once annually, by 31 January each year.*

2.9 China did not support the Draft Conclusion. The meeting was therefore unable to reach consensus on this proposal.

2.10 ICAO provided a copy of the relevant extract from ANP Vol II, which placed a requirement on States to report their NANP implementation progress and the status of its applicable global and regional elements at least once each year<sup>1</sup>. The purpose of the proposed reporting form and reporting mechanism was to provide States with a regionally standardized means to meet the requirement.

2.11 ICAO further informed the meeting that ATM/SG should be expected to support and facilitate this reporting requirement by proposing a standardized mechanism to do so. It was noted that other APANPIRG Sub-Groups were also monitoring the progress of this matter as they too had an interest in how NANP progress would be reported.

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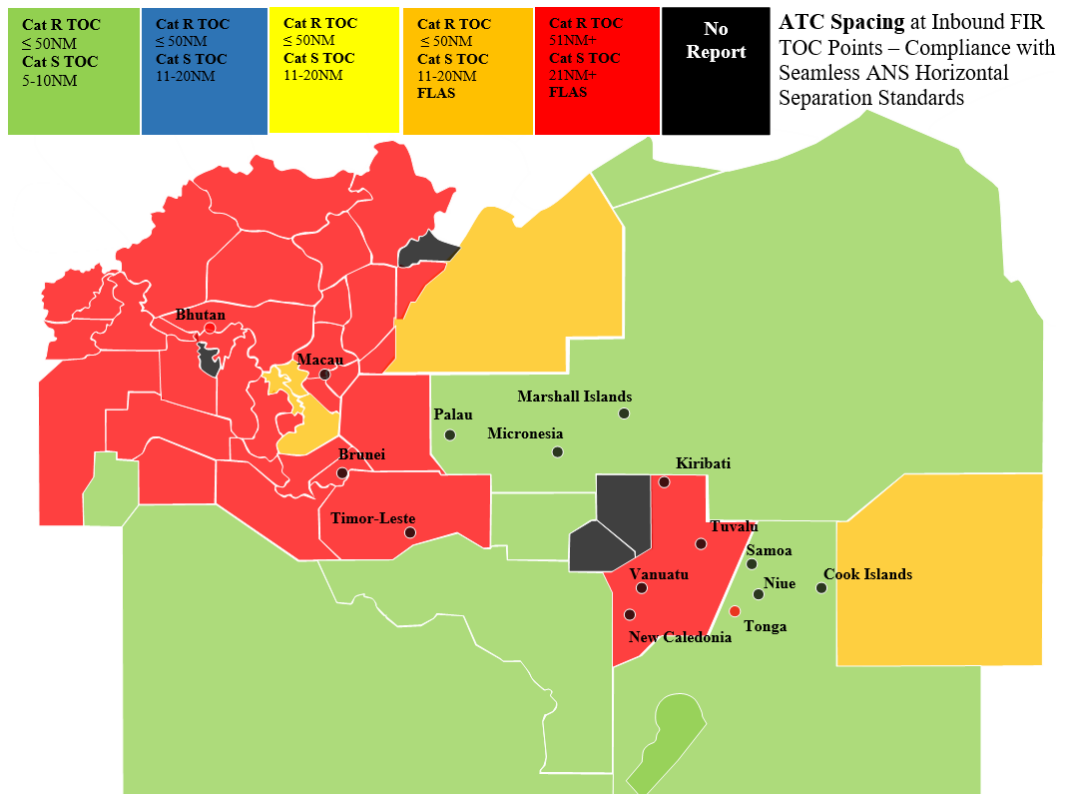
<sup>1</sup> Asia/Pacific Regional Air Navigation Plan Vol II Part I Section 3 – Specific Regional Requirements 3.1.

2.12 The ATM/SG/9 meeting was informed that its report to APANPIRG/32 would include discussion of this matter, to ensure APANPIRG awareness of a regional reporting requirement that could not currently be met.

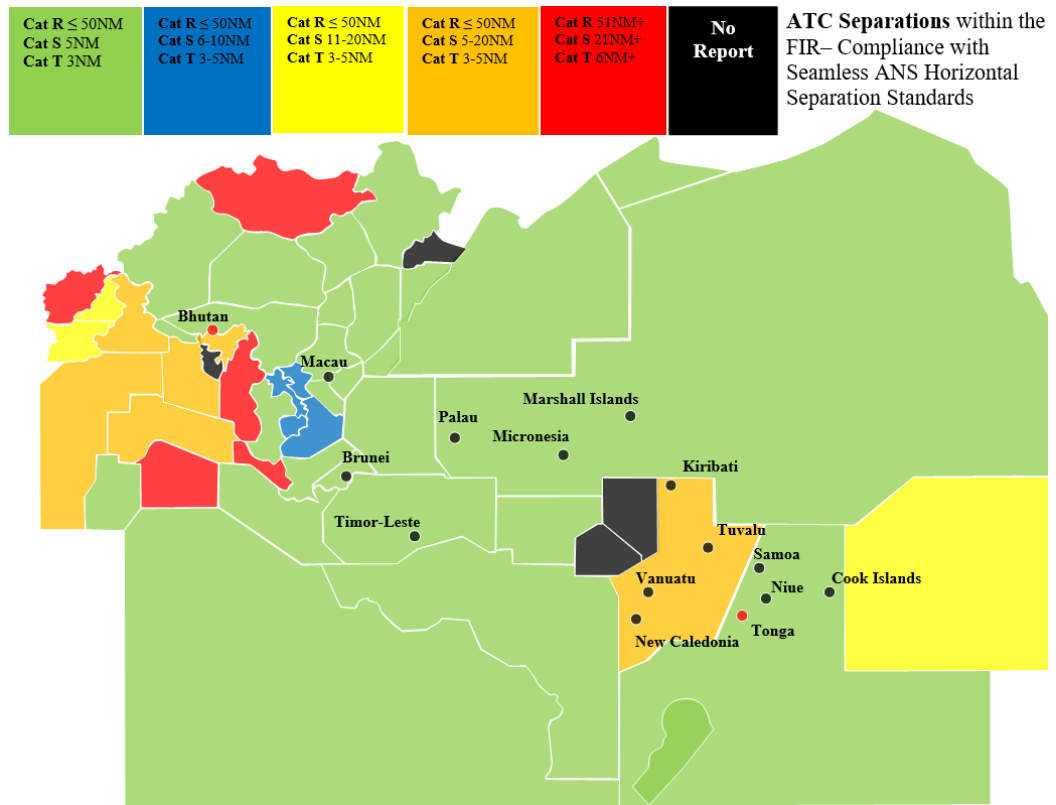
Application of ATC Separation Standards

2.13 ICAO presented data on surveyed ATC separation standards that were being applied within the APAC Region compared to the provisions in the elements 7.34 and 7.35 of the *Asia/Pacific Seamless ANS Plan*. The response from APAC States and Administrations to the latest survey had been poor, with only 12 responses received (28%). The meeting was reminded that responding to the survey required few resources, and was an important activity to understand whether service delivery in the region was matched with the capability of aircraft and ground systems.

2.14 **Figures 1 and 2** illustrated the efficiency of ATC spacing between aircraft at the same level as it is theoretically being applied inbound at FIR TOC Points, and within FIRs, as at March 2021.



**Figure 1:** ANS Horizontal Spacing at Inbound FIR TOC points, March 2021



**Figure 2:** Horizontal Separation Minimums within the FIR, March 2021

2.15 **Figure 1** indicated that no Asian States except for the Male FIR (Maldives), were adhering to the TOC spacing expected inbound to their FIRs in accordance with the *Asia/Pacific Seamless ANS Plan*, despite the largely modernized ATC surveillance and communication systems available. Only two Pacific FIRs were failing to provide the correct TOC aircraft spacing.

2.16 As presented in **Figure 2** and in contrast to the TOC results, many more Asian States and Administrations had been applying the recommended separation minimums within their FIR(s), including China, Japan, the Republic of Korea, Malaysia and Thailand. However, many States were still not meeting the expectations of the Seamless ANS Plan in this regard.

2.17 To better analyse the separation minimums used in the APAC Region, the Regional Office, with valuable inputs from Thailand, had developed a new, replacement survey, also examining spacing applied at each TOC point in order to identify ‘bottleneck’ FIR Boundary TOC points in the region.

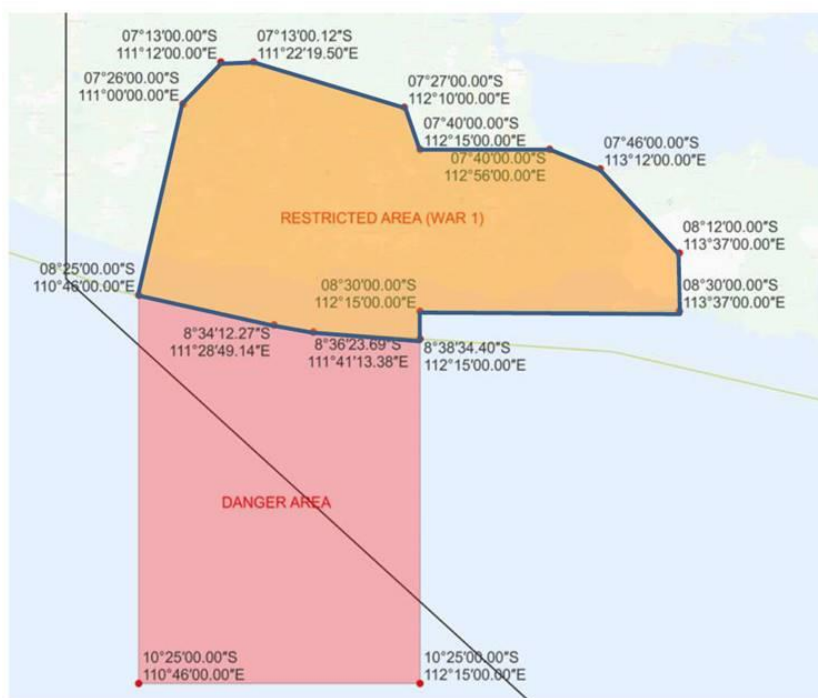
2.18 All Administrations were urged to review Letters of Agreement (LOAs) with adjacent FIR, both periodically and whenever there was an improvement in CNS/ATM systems, given the urgent need to ensure the most efficient ATM systems to support the fragile recovery of the aviation industry after severe financial losses during the COVID-19 pandemic.

2.19 The meeting agreed to the following Draft Conclusion, originally drafted by the Combined Tenth Meeting of the South Asia – Indian Ocean ATM Coordination Group and Twenty-Seventh Meeting of the Southeast Asia ATS Coordination Group (SAIOACG/10 and SEACG/27, 29 March to 02 April 2021) for consideration by APANPIRG/32:

<b>Draft Conclusion ATM/SG/9-1: Implementation of Efficient ATS Horizontal Separations and Transfer of Control Aircraft Spacing</b>	
<p>What: That, given the global priority to support airlines’ recovery from the unprecedented negative economic consequences of the COVID-19 pandemic and the suitable low traffic environment:</p> <p>a) States/Administrations are strongly urged to review and update their National Air Navigation Plans (NANPs) to ensure that Air Navigation Service Providers (ANSPs) fully implement the horizontal separation and aircraft spacing elements in the Asia/Pacific Seamless ANS Plan V3.0; and</p> <p>b) ICAO considers the need for seminars, workshops and other educational material to support this implementation.</p>	<p>Expected impact:</p> <p><input checked="" type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input checked="" type="checkbox"/> Economic</p> <p><input checked="" type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: Due to the non-implementation by many APAC State/Administrations of the expectations of the Asia/Pacific Seamless ANS Plan regarding horizontal separation and spacing standards, and to support airline recovery.</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 3-Dec-21</p>	<p>Status: Draft to be adopted by PIRG</p>
<p>Who: <input type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input checked="" type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: RSO</p>	

Civil-Military Cooperation and Designation of Special Use Airspace

2.20 Indonesia clarified the corrective action plans of Indonesia to eliminate its APANPIRG deficiency on the designation of restricted area within international airspace. In July 2021 the military had provided a set of coordinates to be published in Aeronautical Information Publication (AIP) Indonesia, designating the airspace concerned as Danger Area, where it was over international waters (Figure 3).



**Figure 3:** Establishment of Danger Area in International Airspace

2.21 Deletion of the deficiency has been recommended under Agenda Item 4.

2.22 In further discussing the designation of Special Use Airspace (SUA) in airspace over the high seas the meeting was informed that the Annex 11 provided the following standard in this regard:

*2.33.3 The identification shall be composed of a group of letters and figures as follows:*

*a) nationality letters for location indicators assigned to the State or territory which has established the airspace;*

*b) a letter P for prohibited area, R for restricted area and D for danger area as appropriate; and*

*c) a number, unduplicated within the State or territory concerned.*

*Note.— Nationality letters are those contained in Location Indicators (Doc 7910).*

#### ATM and Airspace Safety Deficiencies List

2.23 ICAO presented the list of APANPIRG Air Navigation Deficiencies in the ATM and Airspace Safety fields. The ATM/SG/9 meeting recommended the following change proposals for consideration by APANPIRG/32 under Agenda Item 4:

a) Designation of Restricted Areas

- i. Indonesia deletion, subject to provision of a copy of the relevant section of AIP Indonesia;
- ii. Australia amendment – TBD set to December 2022.

2.24 Deficiencies identified by IFALPA were provided noting that the APANPIRG Procedural Handbook stated that such deficiencies were valuable sources of information that should be considered by APANPIRG. A list of contacts was provided by IFALPA for the use of States wishing to discuss these deficiencies.

2.25 There was considerable discussion of the IFALPA Deficiencies, relating to advance coordination by IFALPA before raising deficiencies, proposed mitigations, more detail, and out-of-date information.

2.26 The meeting was reminded that the list of IFALPA Points of Contact (POCs) was provided, and that States should utilise it to contact IFALPA to discuss these issues. ICAO was also asked to provide IFALPA with the ICAO List of Contacts for Deficiencies, for the same purpose.

2.27 The meeting was of the opinion that the IFALPA Deficiencies should be presented separately from the APANPIRG Deficiencies, in a working paper presented by IFALPA.

#### Air Traffic Flow Management Steering Group Outcomes

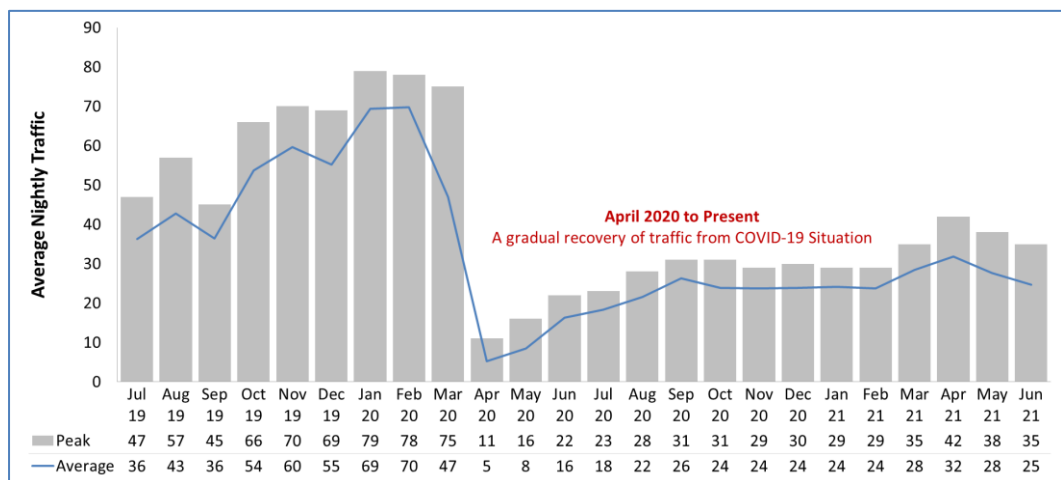
2.28 The meeting was informed of the outcomes of the 11<sup>th</sup> Meeting of the Air Traffic Flow Management Steering Group (ATFM/SG/11), held by VTC from 02 to 06 August 2020.

2.29 The Sixth Meeting of the Asia/Pacific Airport Collaborative Decision-Making Task Force (APA-CDM/TF/6, 28 – 30 April 2021) had agreed to develop a regional model for the integration of ATFM and A-CDM. Noting the planned dissolution of the APA-CDM/TF the associated action Items 5/2 and 5/3 from the APA-CDM/TF Task List had therefore been recorded in the ATFM/SG Task List pending APANPIRG agreement that ATFM/SG continue regional A-CDM work.

2.30 Also noting that the Fifth Meeting of the Aerodrome Operations and Planning Sub-Group (AOP/SG/5, 29 June to 2 July 2021) had agreed to **Draft Decision AOP/SG/5-4: Dissolution of the APA-CDM/TF**, the ATM/SG/9 meeting agreed to the following Draft Decision, drafted by ATFM/SG/11:

<b>Draft Decision ATM/SG/9-2: Revised ATFM/SG Terms of Reference</b>	
<b>What:</b> That, in the event that APANPIRG/32 adopts <b>Draft Decision AOP/SG/5-4: Dissolution of the APA-CDM/TF</b> and determines that ongoing APAC regional A-CDM work be conducted by ATFM/SG, the revised ATFM/SG Terms of Reference at <b>Attachment B</b> be adopted.	<b>Expected impact:</b> <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
<b>Why:</b> To ensure the continuity of regional A-CDM activity conducted under APANPIRG	<b>Follow-up:</b> <input type="checkbox"/> Required from States
<b>When:</b> 3-Dec-21	<b>Status:</b> Draft to be adopted by PIRG
<b>Who:</b> <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:	

2.31 ATFM/SG/11 had been provided with an operational analysis and overview of westbound flights through the Kabul FIR associated with the Bay of Bengal Cooperative ATFM (BOBCAT) system for the two-year period from July 2019 to June 2021. **Figure 4** illustrated the BOBCAT slot request volume for the period.



**Figure 4:** BOBCAT Traffic Demand from Slot Request: July 2019 – June 2021

2.32 The meeting was informed that due to the current ATM contingency situation in the Kabul FIR BOBCAT system operations had been temporarily suspended until such time as demand for overflights of Afghanistan resumed.

2.33 An update was provided on progress in the Asia/Pacific Cross-Border Multi-Nodal ATFM Collaboration (AMNAC), including post-operations analysis results, the role of collaboration during the COVID-19 pandemic, technical progress on ATFM information exchange via Aeronautical Fixed Telecommunications Network/ATS Message Handling System (AFTN/AMHS), discussion on the progress of SWIM development for ATFM, and the development of a Flight Information Exchange Model (FIXM) 4.2 APAC Extension.

2.34 ATFM collaboration had been established with the East-Asia Air Traffic Management Coordination Group (EATMCG) using the multi-nodal ATFM Concept of Operations (CONOPS). Other collaborative efforts included those between Hong Kong China and Japan, Republic of Korea, and Taipei ACC. It was also possible to extend the trial use of Calculated Take Off Time (CTOT) instead of Minutes-in-Trail (MINIT) currently being undertaken with EATMCG to the AMNAC group, noting that the current reduced traffic conditions may offer a good trial opportunity. Singapore also expressed interest in supporting trials by receiving CTOTs or Calculated Time Over (CTO) converted from MINIT requirements.

2.35 Hong Kong China had conducted nine Ground Delay Programme (GDP) operational trials to provide continuous training and familiarization to Hong Kong ATFM personnel and regional partners. The trials were conducted once or twice per month since January 2021, distributing CTOTs to AMNAC and EATMCG ANSPs. As there was currently no genuine demand/capacity imbalance at HKIA, only no-delay CTOTs were distributed. The operational trials had proven to be an important activity, validating the ATFM concept and procedures, facilitating ATFM personnel maintenance of currency in common operating procedures and providing training opportunities.

2.36 India’s Central Air Traffic Flow Management System (C-ATFM) was planned to be implemented in three phases. The C-ATFM system would be provided with cross-border multi-nodal ATFM information exchange capability in accordance with the APAC AFTN/AMH-based ICD for ATFM. C-ATFM was receiving Space-Based ADS-B surveillance data for oceanic airspace through the ATM automation system. Extended coverage would be considered to facilitate future long range ATFM. The distribution of ATFM measures for cross-border ATFM would commence in C-ATFM Phase III.

2.37 India estimated that, following the significant impact of COVID-19 on traffic levels, traffic may recover to 70% of December 2019 levels by the end of 2021.

2.38 Japan and Republic of Korea had informed ATFM/SG/11 of flow management changes made to the ‘AKARA Corridor’. **Table 1** summarized the changes in coordination and communications between China, Japan and Republic of Korea, according to new agreements replacing or revising the previous Letters of Agreement:

ATFM in the Corridor	Before	After (as of March 25 2021)
Coordination	China ↔ Japan ↔ ROK	China ↔ ROK ↔ Japan
Communication Network	Commercial line between Fukuoka ATMC and Shanghai ATCC	Commercial line between Shanghai ATCC and Daegu ATCC, between Daegu ATCC and Fukuoka ATMC

**Table 1:** Coordination and Communication in the AKARA Corridor (Incheon FIR)

2.39 IATA had acknowledged the resolution of the long-standing issue of overlapping sectorization, and informed the meeting that airspace users operating on A593 were very much expecting increased capacity and flexibility of operations on the route in the future.

2.40 ATFM/SG/11 had been updated on progress of the Northeast Asia Regional ATFM Harmonization Group (NARAHG), formed by China, Japan, and Republic of Korea. Information was provided on normal traffic volumes (2019), information exchange, data connection testing and ICD, the NARAHG CONOPS, the planned ATFM connection utilizing the APAC Common Aeronaughtical Virtual Private Network (CRV), the establishment of a task force for severe weather reroute coordination, and recent major activities.

2.41 The ATFM/SG/9 meeting was informed that ATFM/SG/11 had noted the information exchange model used in NARAHG ATFM exchanges was not FIXM, and was reminded that performance expectations of the Regional Framework for Collaborative ATFM specified the use of FIXM. China informed the ATFM/SG/9 meeting that the current NARAHG ICD was based on FIXM 4.1.0, which had been implemented in January 2019 for data exchange via the CRV. The ICD version would remain fixed, with any further upgrade implemented after all NARAHG members agreed.

2.42 A summary of the ATFM implementation status of APAC Administrations was provided, reported against the performance objectives of the Regional Framework for Collaborative ATFM. It was noted that COVID-19-pandemic-related disruption to ICAO meeting planning and associated APAC ANSP activities may have contributed to the lack of reporting in 2020 and 2021.

2.43 Based on reports received States were assessed as having Robust (90-100%), Marginal (70-89%) or Incomplete (0-69%) implementation. .

- India, Singapore, Thailand and USA were assessed as having Robust implementation.
- Australia, China, Hong Kong China, Japan, Indonesia, Pakistan and Republic of Korea were assessed as Marginal implementation.
- Bangladesh, Cambodia, Macao China, Malaysia, Maldives, Mongolia, Myanmar, Nepal, New Caledonia, New Zealand, Papua New Guinea, Philippines and Viet Nam were assessed as Incomplete.

2.44 The following APAC States had never provided an implementation status report, and their implementation status was recorded as Did Not Report:

- Afghanistan, Bhutan, Brunei Darussalam, Cook Islands, Fiji, France (French Polynesia), DPR Korea, Kiribati, Lao PDR, Marshall Islands, Micronesia, Nauru, Palau, Samoa, Solomon Islands, Sri Lanka, Timor Leste, Tonga, Tuvalu, and Vanuatu.

2.45 ATFM/SG/11 had commenced initial planning for an update of the Regional Framework for Collaborative ATFM. It was expected that a final draft of the reviewed document should be provided to ATFM/SG/12 in 2022, and subsequently to ATM/SG/10.

#### Missing Departure (DEP) Messages

2.46 ICAO provided an update on the issue of missing DEP messages, as discussed at multiple meetings of the ATFM/SG and ATM/SG since and including ATFM/SG/8 (2018) and ATM/SG/7 (2019). The meeting was reminded of *Conclusion APANPIRG/27/12: Origination and Distribution of Departure (DEP) Messages*, and *Conclusion ATM/SG/7-5: ATS Message Reception and Handling*.

2.47 Bangladesh, India, Malaysia, Maldives, Nepal and USA currently had APANPIRG ATM and Airspace Safety Deficiencies recorded for non-compliance with the requirements of ICAO Doc 4444 – *Procedures for Air Navigation Services – Air Traffic Management* (PANS-ATM) Section 11.4. In response to a query ICAO informed the meeting that this Deficiency did not relate to State AIP ENR 1.11 *Addressing of flight plan messages*, but instead was related to the percentage of flights for which DEP messages were not transmitted.

2.48 Due to the COVID-19 pandemic the planned further data gathering and analyses in 2020 and 2021 had not been conducted, as the significant reduction in air traffic was considered to render a data analysis of unrepresentative. However, noting the importance of this issue another regional analysis was being tentatively planned.

#### Regional Air Navigation Plan Update

2.49 ICAO presented an update on the ANP for the APAC Region. Noting that the previous ICAO Doc 9673 Asia and Pacific Regions Regional Air Navigation Plan did not provide a legal description of FIRs in the first place, it was important for States to understand that the process of checking, alignment and validation was crucial to provide a formal basis for their FIRs.

2.50 As FIRs were considerably more difficult to establish than Search and Rescue Regions (SRRs), the review of FIRs had been commenced first. ICAO anticipated that the SRR Table would be completed by October 2022, to be entered into the ANP by APANPIRG/33.

2.51 There were four areas affecting the resolution of 11 FIRs, each with a political dimension and therefore appropriately involving APANPIRG in terms of overseeing the process used to resolve issues. The four areas are detailed in **Attachments C to F**.

2.52 In response to a query on why the PfA for ANP definition of a FIR remained subject to further consultation when the common coordinates published in the AIPs of the two States concerned were aligned, ICAO informed the meeting that FIR boundary coordinates were required to be established by Regional Air Navigation Agreement<sup>2</sup>. In the case mentioned, the PfAs for the two FIRS, submitted separately by the two States, did not align.

2.53 Republic of Korea believed completing the eANP review as early as possible would best serve the original purpose if the coordinates provided by each Contracting State corresponded to the historical data of ICAO.

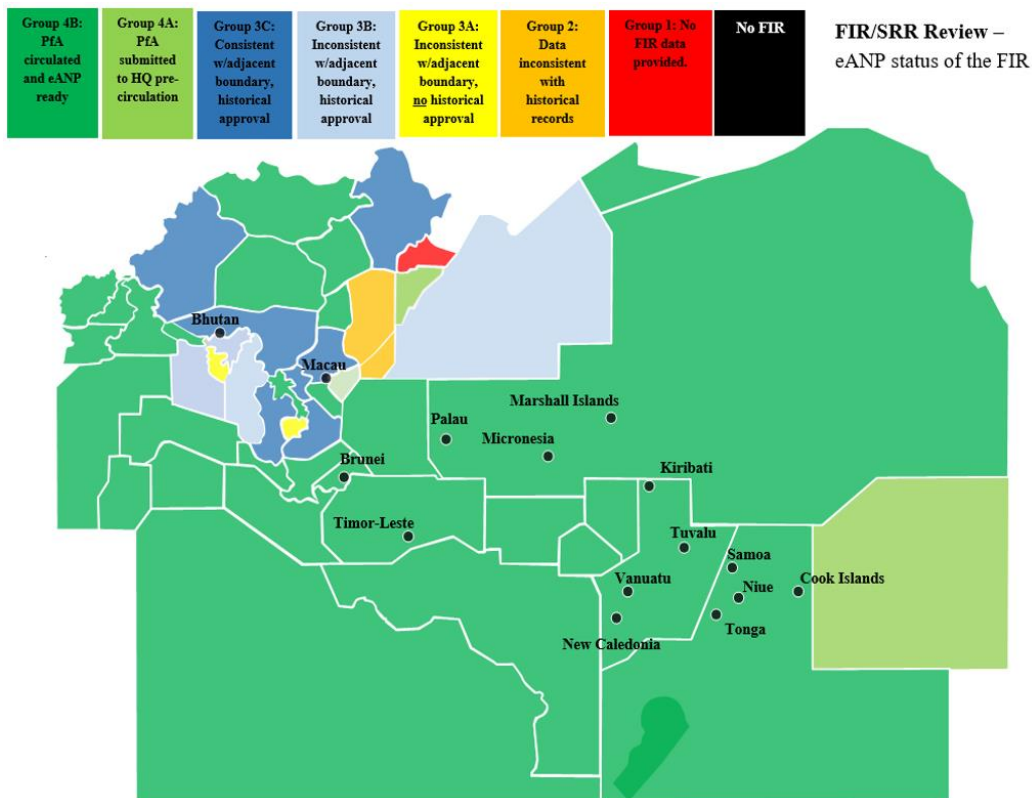
2.54 Regarding as-yet uncirculated PfAs for FIRs with coordinates the same as historical data, the meeting was informed that due to the requirement for Regional Air Navigation Agreement the PfAs submitted for adjacent FIRs must also be in alignment. This process was necessary to ensure that objections did not obstruct the process at the later crucial stage of reaching such agreement.

2.55 IATA reminded the meeting that FIR boundary definition was a matter of the practicality of managing air traffic flows, and the airspace user perspective should be kept in mind.

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<sup>2</sup> ICAO Annex 11 *Air Traffic Services* Chapter 2 refers.

2.56 30 FIR PfAs had been approved by the President of the Council and the data incorporated in ANP Vol. I Table ATM I-1. Three FIR PfAs had been received by the ICAO Regional Office and were expected to be circulated shortly for ICAO HQ review. 12 FIR PfAs had been submitted to the Regional Office but required further clarification/justification with adjacent States. **Figure 5** showed the FIR review status in October 2021.



**Figure 5:** FIR Review Status, October 2021

2.57 14 SRR PfAs had been submitted and were being processed.

Resolution Effort for FIR Boundary Difference in Japan

2.58 The meeting was informed of Japan’s effort to resolve a difference in the FIR boundary between Japan and the Russian Federation. ATM/SG/8 had noted a previously unknown inconsistency with regard to the boundary coordinates of the Fukuoka (Japan) FIR and the Khabarovsk (Russian Federation) FIR. **Figure 6** illustrated the inconsistency. ICAO had proposed that bilateral discussions be held between Japan and the Russian federation, supported as required by the APAC and European and North Atlantic (EUR/NAT) Regional Offices.

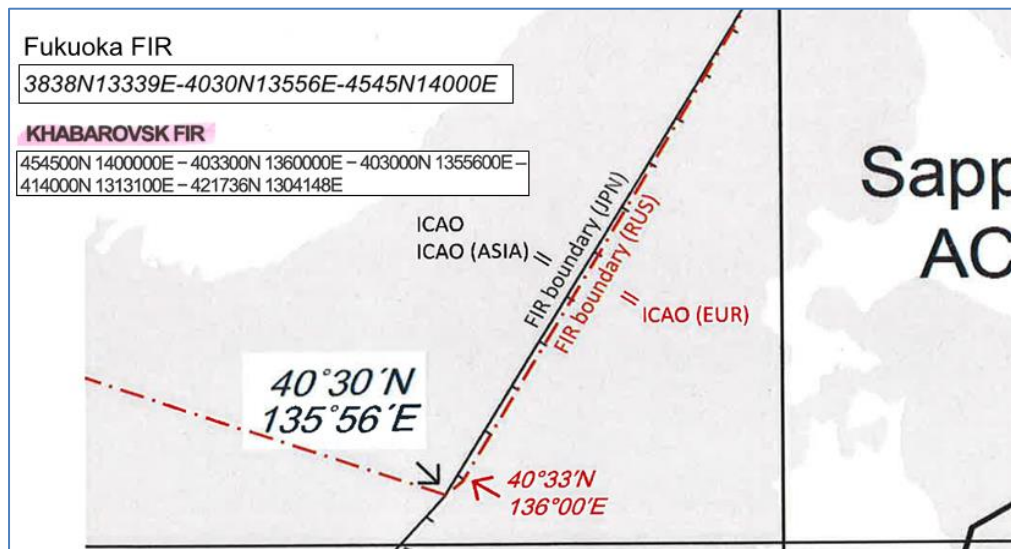


Figure 6: FIR Boundary Difference between Fukuoka and Khabarovsk FIRs.

2.59 ICAO informed the meeting that a 2014 request from Japan that ICAO investigate the FIR boundary coordinate issue had been referred to the EUR/NAT Regional Office, but there had been no response and the matter had not progressed. The meeting was informed of the sequence of events that may have led to this outcome. ICAO APAC Regional Office would again take up the matter with the EUR/NAT Office.

Amendments to Annexes and PANS Relating to the Global Reporting Format for Runway Surface Conditions

2.60 ICAO reminded the ATM/SG/9 meeting of the applicability, from 04 November 2021, of ICAO provisions in various Annexes and PANS for the reporting of runway surface conditions using the Global Reporting Format (GRF), SNOWTAM and revised ATC phraseology. This topic is further discussed in paragraphs 2.126 and 2.127, and under Agenda Item 3.1.

2.61 IATA informed the meeting that there were some States that would not implement the GRF and associated procedures, some States would implement in accordance with ICAO provisions, and some States would implement a different form of GRF and/or procedure. It was very important that the aerodrome user had clear information in this regard.

Implementation of Status of SID/STAR Phraseology

2.62 ICAO informed the meeting of the results from a survey to States associated with the current implementation of the Standard Instrument Departure/Standard Arrival Route (SID/STAR) phraseology changes published in Amendment 7 to PANS-ATM, applicable from 10 November 2016. The survey, addressing Action Item 7/1 of the ATM/SG Task List, was circulated under State Letter AP087/21 (ATM) dated 12 May 2021. An informal survey on implementation planning had previously been circulated (May 2018), but few responses were received.

2.63 The meeting was reminded of *Conclusion ATM/SG/6-4: Asia/Pacific Regional SID/STAR Phraseology Implementation Strategy*, adopting the strategy and urging all APAC Administrations to respond to a survey on the implementation of the SID/STAR phraseology and report final implementation of the phraseology to the ICAO APAC Office.

2.64 15 Administrations responded to the May 2021 survey:  
Australia, Hong Kong China, French Polynesia, India, Indonesia, Japan, Nepal, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Singapore, Sri Lanka, Thailand and USA.

2.65 Of the responding Administrations, 11 had implemented the phraseology, three had partially implemented, one had planned but not yet implemented. 29 Administrations did not respond.

SAIOACG and SEACG Outcomes

2.66 ICAO presented the key outcomes of the Combined SAIOACG/10 and SEACG/27 meeting, held from 29 March to 02 April 2021.

2.67 Noting the need to support airlines’ recovery from the severe financial losses caused by the COVID-19 pandemic and the suitable low traffic environment, the meeting agreed to ***Draft Conclusion SAIOACG/10 and SEACG/27-1: Implementation of Efficient ATS Horizontal Separations and Transfer of Control Aircraft Spacing***, as discussed and agreed by the meeting under ***Draft Conclusion ATM/SG/9-1*** as noted in paragraph 2.19 of this paper.

2.68 The SAIOACG/10 and SEACG/27 meeting had discussed the results of the Future Meeting Modalities Survey conducted by the ICAO APAC Regional Sub-Office, which requested respondents to advise on the preferred modality and conduct of future SAIOACG and SEACG Meetings.

2.69 ATM/SG/9 agreed to the following Draft Decision, drafted by SAIOACG/10 and SEACG/27 to ensure future meetings were conducted more effectively and economically:

<b>Draft Decision ATM/SG/9-3: Combining SAIOACG and SEACG Groups to form the South Asia, Indian Ocean and Southeast Asia ATM Coordination Group (SAIOSEACG)</b>	
<p>What: That, noting the:</p> <p>1. large cross-over in work between the SAIOACG and SEACG, with about 90% of the papers being developed by the Secretariat and virtually the same content; and</p> <p>2. resource challenges to States/Administrations in terms of participant’s travel and attendance costs attending two separate meetings;</p> <p>the two groups be combined to form the South Asia, Indian Ocean and Southeast Asia ATM Coordination Group (SAIOSEACG), with Terms of Reference as provided in <b>Attachment G</b>.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To consolidate two meetings the which the majority of business is duplicated, thereby leading to better efficiencies for States and ICAO.</p>	<p>Follow-up: <input type="checkbox"/> Required from States</p>
<p>When: 3-Dec-21</p>	<p>Status: Draft to be adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	

### ATS Route Catalogue

2.70 The ICAO APAC Regional Sub-Office had reviewed the *Asia/Pacific Region ATS Route Catalogue*, including correspondence with all concerned States/Administration and IATA requesting status updates on relevant route proposals. Feedback had been incorporated into the draft *Asia/Pacific Region ATS Route Catalogue*, which was reviewed by the meeting and would be uploaded to the APAC website as Version 21.

2.71 Some cross-border airspace improvement projects were delayed, possibly due to a lack of validation tools to support the decision-making process. Feedback received by ICAO following a survey to identify validation methods and tools commonly used in the APAC region had led to the conclusion that the ICAO APAC Regional Sub-Office should conduct a webinar for States to share their knowledge and experiences and the benefits gained by using validation tools. The webinar was tentatively planned to be held in January 2022.

2.72 IATA also presented its 2021 review of the Asia/Pacific ATS Route Catalogue, and requested States to urgently carry out a detailed review of routes in their area of responsibility for possible implementation, given the changed COVID-19 pandemic environment and expected 'new normal' for aviation operations. Priority routes for airlines were those that gave the most benefit to operations and the environment in terms of CO<sub>2</sub> savings.

2.73 IATA particularly stressed the importance of three routes identified in the review: Himalaya 02 (potential to save 19 to 25 minutes and assist in decongesting A599/Lashio), BOB 01 (to provide a more efficient connection of traffic from the south west Bay of Bengal to the Far East) and BOB 02 (providing more efficient connectivity over the Bay of Bengal and assisting the decongestion of several other ATS routes.).

2.74 Nepal supported IATA's suggestion on the Himalaya 2 route as it was crucial to support the airline community under the circumstances of the COVID-19 pandemic, by contributing significant track-mile savings, and urged that all other stakeholders consider IATA's suggestion positively. China stated that a new entry waypoint to the Kunming FIR to support Himalaya 02 was impossible. IATA acknowledged China's position from a previous review, noting that was why an amendment to the proposal was now included and requested consideration again by all parties.

### Optimisation of the Capacity of Air Routes L642 and M771

2.75 Hong Kong China presented an initiative for relevant Administrations to optimize the capacity of air routes L642 and M771 by means of enhancing the longitudinal spacing applied, to be better prepared for the anticipated strong traffic resurgence and future growth in the APAC Region.

2.76 ICAO informed the meeting this initiative had also been discussed in meetings of SEACG and its South China Sea Traffic Flow Review Group (SCSTFRG). The Administrations concerned had agreed to the proposal, would work offline and report outcomes to the next meeting of the SCSTFRG.

### Implementation of Enhanced Wake Turbulence Separation at Hong Kong International Airport

2.77 The meeting was informed of a project initiated by Hong Kong China for the implementation of a revised wake turbulence separation scheme to improve the runway delivery rate at Hong Kong International Airport (HKIA). Considering the similarity of the scheme and the new ICAO wake turbulence separation scheme published during the period of the project, Hong Kong China had implemented the ICAO scheme on 05 November 2020.

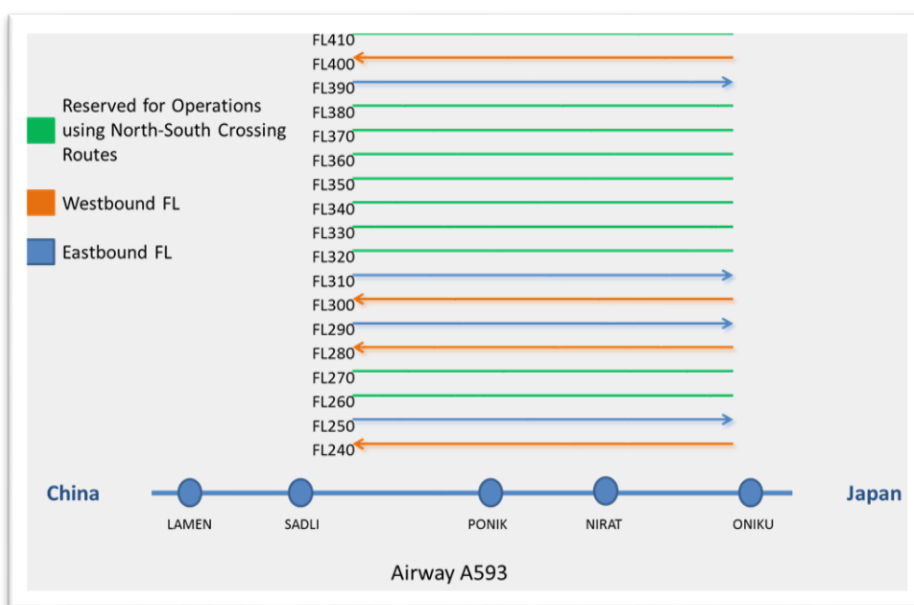
2.78 Information was provided on the development of the HKIA project, collection and analysis of data, the project safety plan and local safety case, implementation plan and mitigating measures, operational experience and benefits, and stakeholders' collaboration.

2.79 Hong Kong China proposed that appropriate sessions should be arranged for the sharing of experience and lessons learnt with others to assist in project initiation. This was subsequently included in the ATM/SG Task List.

Consideration of FLAS Elimination in AKARA Corridor

2.80 Japan presented updates of safety improvement, and a proposal for the elimination of the Flight Level Allocation Scheme (FLAS) in the AKARA – FUKUE Corridor airspace.

2.81 The FLAS operation in the AKARA corridor airspace was depicted in **Figure 7**.



**Figure 7:** Flight Level Allocation Scheme (FLAS) in the AKARA Corridor airspace

2.82 The meeting was informed of discussion at RASMAG/26 relating to Seamless ANS Plan element 7.35, and the discussion outcomes of the RASMAG/26 breakout session on the AKARA corridor airspace.

2.83 Japan requested that ICAO consider looking into how ATS surveillance covered the AKARA corridor airspace, and whether paragraph 7.35 of the Seamless ANS Plan justified the use of the FLAS. ICAO was also asked to comment on the rationale for the Seamless ANS Plan 50 NM parameter for determining whether a FLAS should be implemented.

2.84 Responding to this discussion, Republic of Korea provided information discussing the small scale of improvement in the airspace technical risk that would result from removal of the FLAS, the non-sharing of ATS surveillance data, surveillance coverage of the Incheon FIR, some matters of procedure for traffic handling on ATS routes A593 and Y590/Y591, and the current LOA between Japan and Republic of Korea, and suggestions.

2.85 Republic of Korea stated that the consensus on 25 December 2020 was that Republic of Korea would consider Japan in ensuring fair and equitable use of optimum flight levels, the new single ATC unit at crossing points in the Incheon FIR was applying the increased use of non-FLAS flight levels, and that the FLAS issue should be discussed in a bilateral meeting.

2.86 Responding to the requests for ICAO comments, the meeting was informed that the Seamless ANS Plan paragraph 7.35 (FLAS) had initially been developed in the consultative process used by the Asia/Pacific Seamless ATM Planning Group (APSAPG) when drafting and finalizing the first version of the Seamless ATM Plan in 2012/2013. ICAO considered FLAS did not meet expectations for seamless airspace, particularly in airspace that was well-served by surveillance and VHF communications coverage. ICAO also clarified the intent of the statement in Seamless ANS Plan element 7.35 b) was that FLAS in Category S airspace should only be utilized for safety and efficiency reasons where crossing track conflicts occurred within 50 NM of the FIR boundary; However, if surveillance coverage or surveillance data sharing was available to provide surveillance covering the boundary airspace, then FLAS should not be applied.

2.87 While ICAO considered FLAS in Category S airspace should not be necessary, the current AKARA airspace project was the primary consideration. Completion of Phase 2 of that project should be the first priority, with the FLAS issue addressed separately and at a later time.

Activation of Danger Areas over High Seas for Prolonged Duration (WP/27)

2.88 IATA presented concerns regarding continued prolonged hours of Danger Area activation over the high seas (over international waters outside territorial seas), and suggested there was a need to enhance processes for the management of such areas in line with the *as civil as possible, as military as necessary* principle of the ICAO Doc 10088 *Manual on Civil-Military Cooperation in Air Traffic Management*.

2.89 Blanket, prolonged activation of Danger areas ignored the needs of other airspace users, and indicated gaps in the coordination mechanisms between States, ATS Units and military authorities. Enhanced coordination between civil and military authorities should focus on minimizing the Danger Area activation window, considering activation timings in periods of less air traffic, accommodating preferred flight levels for civil traffic as far as practicable, and the implications of weather-related factors.

2.90 The meeting was reminded that ICAO Doc 10066 PANS-Aeronautical Information Management (PANS-AIM) procedure required that NOTAMs for Danger Area activation shall be published for all affected FIRs with at least seven days' advance notice. The activation window should be the minimum needed to successfully complete the planned exercise/event. Japan supported the application of seven days' advance notice.

2.91 It was critical that, where any temporary Special Use Airspace (SUA) extended into other FIRs, NOTAMs were published by all FIRs, with the seven days' advance notice as was required in the PANS-AIM procedure.

2.92 In relation to the case study provided by IATA, one of the States concerned informed the meeting that States may declare Danger Areas in high seas airspace, there was a standard operating procedure applied to reduce negative impacts, it was a sensitive matter, and the only issue was that it did not align with Annex 15 requirements. ICAO responded that the non-alignment with Annex 15 standard was a critical safety issue which had been discussed in multiple ICAO APAC meetings since March 2018 (SAIOACG/8), and was the subject of an APANPIRG Air Navigation Deficiency, agreed by APANPIRG/29 in September of that year and which had not yet been addressed by the State concerned.

2.93 ATM/SG/9 agreed to the following technical Conclusion:

***Conclusion ATM/SG/9-4: Management of Danger Areas situated over the High Seas***

*That, acknowledging that safe and sustainable aviation is the prime goal of all stakeholders, and that airspace is a very important shared resource, States are urged to:*

1. *act in accordance with the ICAO DOC 10088 principle as civil as possible, as military as necessary; and refrain from prolonged activation of Danger Areas over the High Seas, particularly activations that are repetitive in nature and impact almost all useable flight levels within the given volume of airspace;*
2. *give due consideration to the requirements of other airspace users (e.g. air traffic density, flight levels, enroute weather factors) during the planning, promulgation and activation of Danger Areas;*
3. *establish robust co-ordination between civil and military authorities, as well as with neighboring FIRs; and*
4. *ensure all affected FIRs provide appropriate AIS (NOTAM) notification regarding activation of the Danger Area*

**Airline Feedback to Airspace Closures and Contingency Response and the Importance of Contingency Planning**

2.94 The meeting was presented airline feedback on recent interruptions to ATS in APAC FIRs, provided by IATA, emphasizing the importance of contingency planning for all States. ATM Contingency events in 2021 had served as good reminders for all States to have relevant, updated and practiced ATM contingency plans in place at all times, with clear agreements and instructions for their timely activation.

2.95 IATA provided information on the Yangon (Myanmar) FIR contingency response to the unavailability of ATC services from 08 to 16 February 2021, and on the current, ongoing contingency operations in the Kabul (Afghanistan) FIR that had commenced on 16 August 2021.

2.96 Feedback was provided on positive aspects of the contingency operations, challenges, and on the additional costs to airlines. Operational and safety challenges included limited contingency routes and flight levels, increased en-route holding, confusion as to applicable Traffic Information Broadcast by Aircraft (TIBA) frequencies, restricted communication with States, and confusing NOTAM management at the resumption of normal operations.

2.97 **Table 2** summarized additional costs to airlines avoiding the Kabul FIR:

<b>Costs*</b>	<b>Time (mins)</b>	<b>Fuel (ton)</b>	<b>Distance (NM)</b>	<b>CO2 (ton)</b>	<b>Fuel (USD)</b>
<b>Max</b>	120	13.7	825	206.1	10378
<b>Min</b>	5	0.5	26.8	51	2168
<b>Ave</b>	55	4	245	111	5574
<b>Mean</b>	39	3	109	96	4958
<b>Median</b>	47.5	3.8	71.5	92.6	5116.5
* columns are not always directly related to each other - they represent a range of individual figures provided for each category.					

**Table 2:** Summary of Additional Flight Costs – Avoidance of Kabul FIR

2.98 IATA feedback included a list of considerations for future contingency planning including the **layering** of plans, inclusion of all stakeholders in plan development, safety assessment of plans and the entry/exit of contingency operations, alternative communications, annual review of plans and associated safety assessments in collaboration with all stakeholders, publication of relevant components of the plan in AIP, NOTAM management and the use of NOTAM to activate plans, and the availability of IATA to coordinate international airline input into the development and review of plans.

2.99 ICAO thanked Pakistan for its valuable assistance in the Kabul FIR contingency operation, and also the other States that were handling the additional traffic resulting from flights avoiding the Kabul FIR.

Regional ATM Contingency Planning and Status Reporting

2.100 ICAO presented information on the *Asia/Pacific Regional ATM Contingency Plan* with regard to State reporting of implementation of its performance expectations, a brief outline of recent ATM contingency events in the APAC Region, and a proposal to conduct an update of the Regional contingency plan.

2.101 The performance expectations of the plan, including the expectation that States would provide a status report at least once annually, were expected to be implemented by 10 November 2016, reflecting the Annex 11 standard that had been applicable since November 2003.

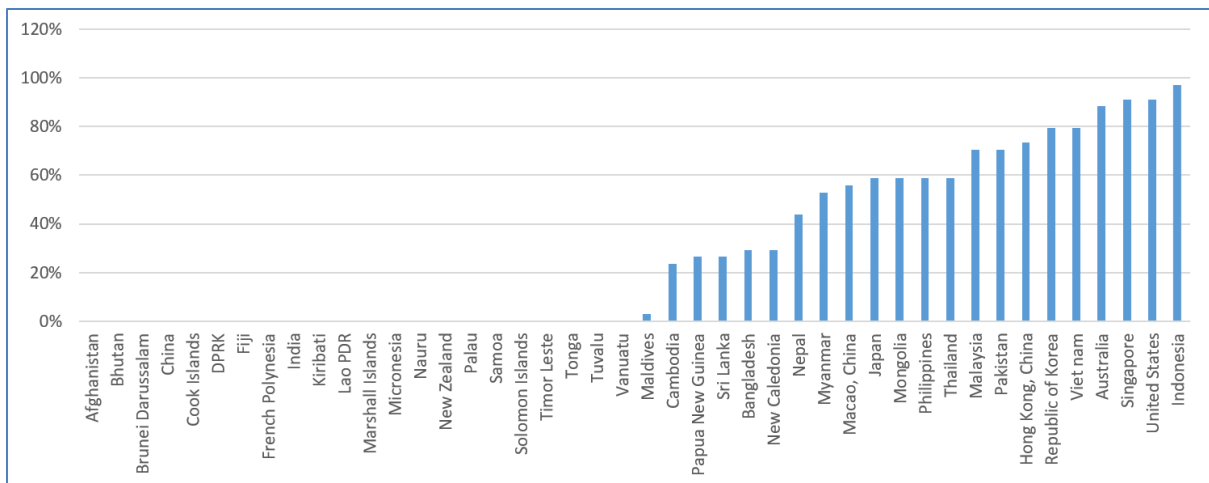
2.102 Implementation status was assessed as *robust* (90 – 100% of expectations implemented), *marginal* (70 – 89%) or *incomplete* (0 – 69%).

2.103 Only Indonesia, Singapore and United States were assessed as having robust implementation.

2.104 22 Administrations had never provided an implementation status report.

Afghanistan, Bhutan, Brunei Darussalam, China, Cook Islands, Fiji, France (French Polynesia), DPRK Korea, India, Kiribati, Lao PDR, Marshall Islands, Micronesia, Nauru, New Zealand, Palau, Samoa, Solomon Islands, Timor Leste, Tonga, Tuvalu, Vanuatu.

2.105 **Figure 8** illustrated the overall regional implementation status:



**Figure 8:** Regional ATM Contingency Plan – Overall Implementation Status

2.106 The meeting was reminded of COVID-19 pandemic-related contingency information, and the *APAC Regional Strategy for COVID-19-related ATM Contingency Recovery*.

2.107 Relevant States were invited to update their Contingency Coordination Team (CCT) details for the *Inter-Regional Afghanistan Contingency Arrangements* and the East Asia and North Pacific CCT.

2.108 The meeting was provided with the ICAO APAC Regional Office summary of the Yangon FIR contingency operations of February 2021, including discussion of Annex 11 provisions and the formation of CCTs, the communications (or lack thereof) during the contingency operation, CCT bulletins, the validity, update and publication of the Myanmar Level 2 contingency plan, CCT teleconference, NOTAM management, operational impact and key issues to be considered among lessons learned.

2.109 A Regional Office summary of the current, ongoing ATM contingency operations in the Kabul FIR was also provided. Information provided included the sequence of events leading up to the withdrawal of all ATS and AIS on 16 August 2021 and the formation of the Kabul FIR CCT, current flight operations in the Kabul FIR, CCT bulletins and key issues for lessons learned.

2.110 The Asia/Pacific Region had experienced three major ATM contingency events in the last three years. Some lessons learned from the 2019 Pakistan airspace closure had been included in a 2019 update of the Regional ATM Contingency Plan. Lessons learned from the Yangon and Kabul FIRs' contingency operations would be included in a planned review of the Regional contingency plan, which would also include editorial corrections and amendments where necessary to ensure full alignment with Annex 11 provisions. ATM/SG/9 was invited to nominate experts to participate in the review of the Regional contingency plan.

#### Refresher Training to Support Resumption of Traffic Demand

2.111 Noting the unprecedented disruption to global air travel and associated drastic and sustained drop in air traffic volume, Singapore's experience in the implementation of continuous and preparatory training for ATC readiness to handle post-COVID-19 traffic surges was shared with the meeting. Singapore proposed that the Region consider sharing experiences to enhance regional collective readiness for resumption of normal traffic levels.

2.112 Singapore proposed that the experience of ANSPs be shared either through an update of the *Asia/Pacific Regional Strategy for COVID-19-related ATM Contingency Recovery*, or other platform as appropriate.

#### Asia/Pacific Search and Rescue Update

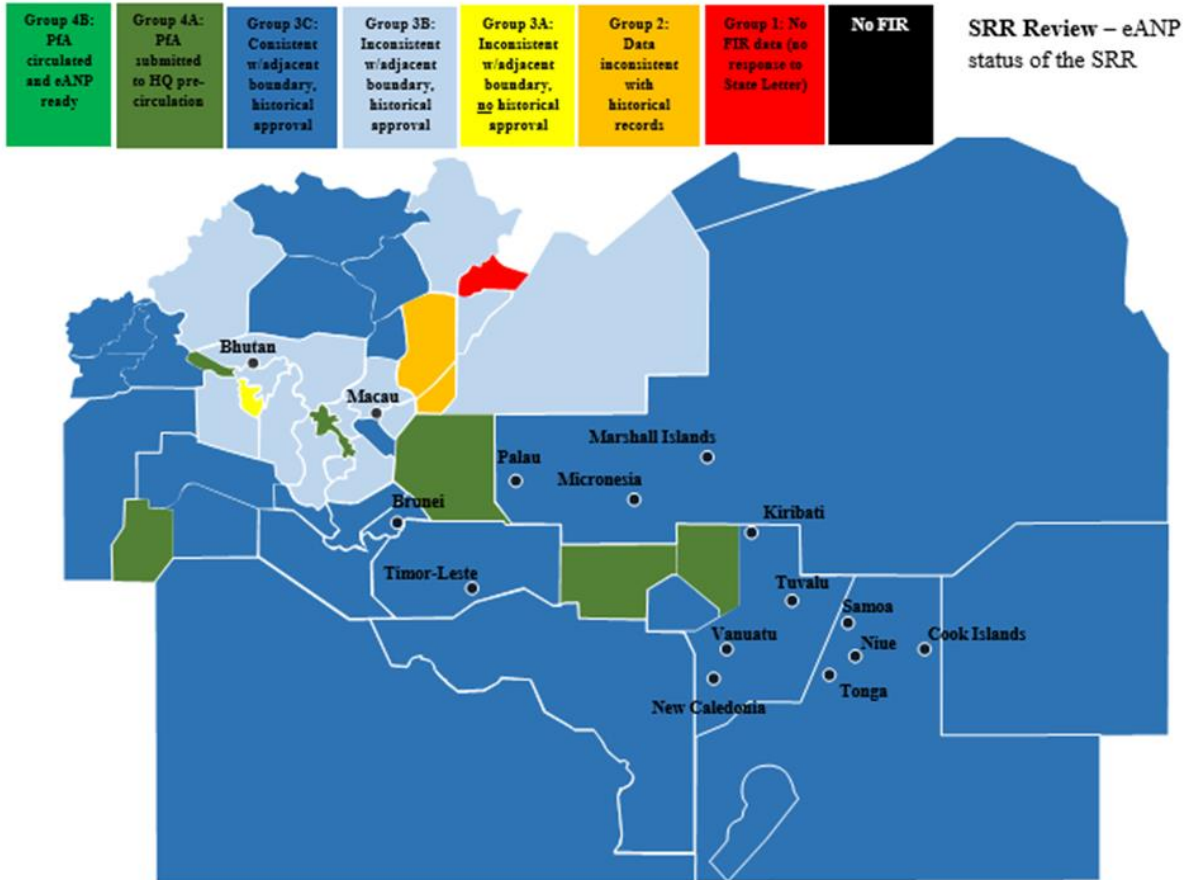
2.113 The meeting was provided with an update of Search and Rescue (SAR) matters for the Asia/Pacific Region, including outcomes from the Asia/Pacific SAR Working Group (APSAR/WG).

2.114 The meeting was also informed of global SAR developments, Autonomous Distress Tracking (ADT) implementation and the Location of Aircraft in Distress Repository (LADR), the status of the Cospas-Sarsat programme, air operators workshops, and the SAR operation following the crash of Sriwijaya Air flight SJ189 on 09 January 2021.

2.115 Regarding SRR verification, the following Administrations (21 of 42 in APAC) had submitted Proposals for Amendment (PfAs) to the Asia/Pacific Regional Air Navigation Plan (ANP) Volume I, which were pending circulation to ICAO Headquarters Secretariat for approval before circulation to all States:

Afghanistan, Australia, China, Fiji, French Polynesia, India, Indonesia, Lao PDR, Malaysia, Maldives, Mongolia, Nauru, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Singapore, Solomon Islands, Sri Lanka and USA.

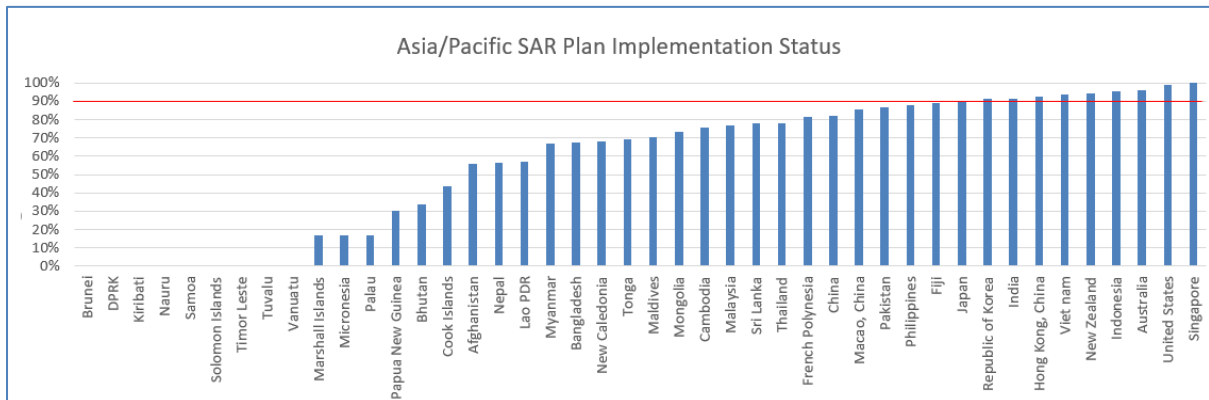
2.116 **Figure 9** indicated the status of SRR verification as at 04 May 2021:



**Figure 9:** SRR Verification Status as at 04 May 2021

2.117 **Figure 10** illustrated the implementation status of the 41 elements of the Asia/Pacific Regional SAR Plan as at 04 May 2021. Only 10 APAC Administrations had reported *robust* implementation of 90% or more:

Australia, Hong Kong China, India, Indonesia, Japan, New Zealand, Republic of Korea, Singapore, USA and Viet Nam



**Figure 10:** Asia/Pacific SAR Plan Implementation Status as at 04 May 2021

2.118 All other APAC Administrations had APANPIRG Air Navigation Deficiencies recorded in the field of SAR Capability.

2.119 APSAR/WG was developing a template Memorandum of Understanding (MoU) between national SAR and Accident Investigation authorities for inclusion in the APAC SAR Plan, with a view to its later inclusion in the International Aeronautical and Maritime SAR (IAMSAR) Manual.

AIS – AIM Implementation Task Force Outcomes

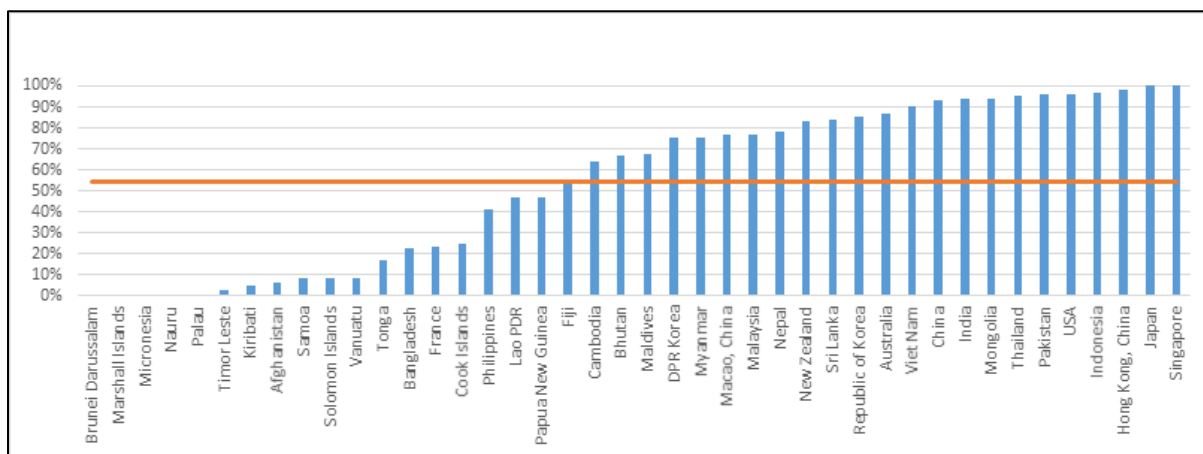
2.120 Outcomes from the 16<sup>th</sup> Meeting of the ICAO AIS – AIM Implementation Task Force (AAITF/16, 07 to 11 June 2021) were provided to the meeting.

2.121 10 APAC States had Deficiencies recorded for non-implementation of World Geodetic System 1984 (WGS-84), two for non-implementation of AIP Format, and 20 for non-implementation of AIS Quality Management System (QMS).

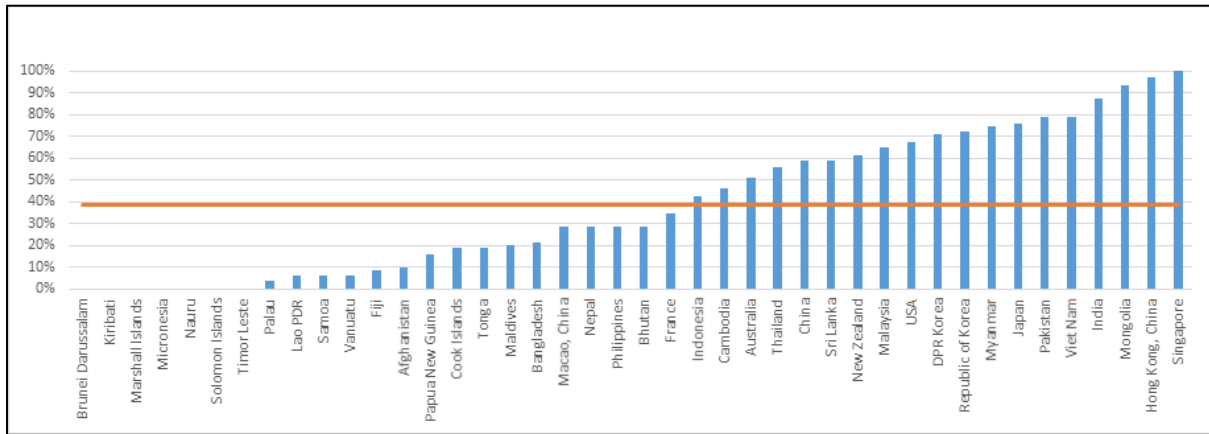
2.122 The meeting was again reminded of the ongoing, deep concern about poor quality management of aeronautical information in the APAC Region, and the apparent lack of organizational priority for this safety-critical obligation of all States. The criteria used by the Regional Office to determine whether an AIS QMS-related Deficiency may be recommended for deletion were provided.

2.123 An update was provided on the status of implementation of the performance expectations of the *APAC Regional Plan for Collaborative AIM*, which were expected to be implemented in three phases: Phase I (immediately), Phase II (07 November 2019) and Phase III, (27 November 2025).

2.124 Japan and Singapore had reported implementation of all Phase I elements. Only Singapore reported implementation of all Phase II elements. **Figures 11 and 12** illustrated overall regional implementation of Phases I and II.

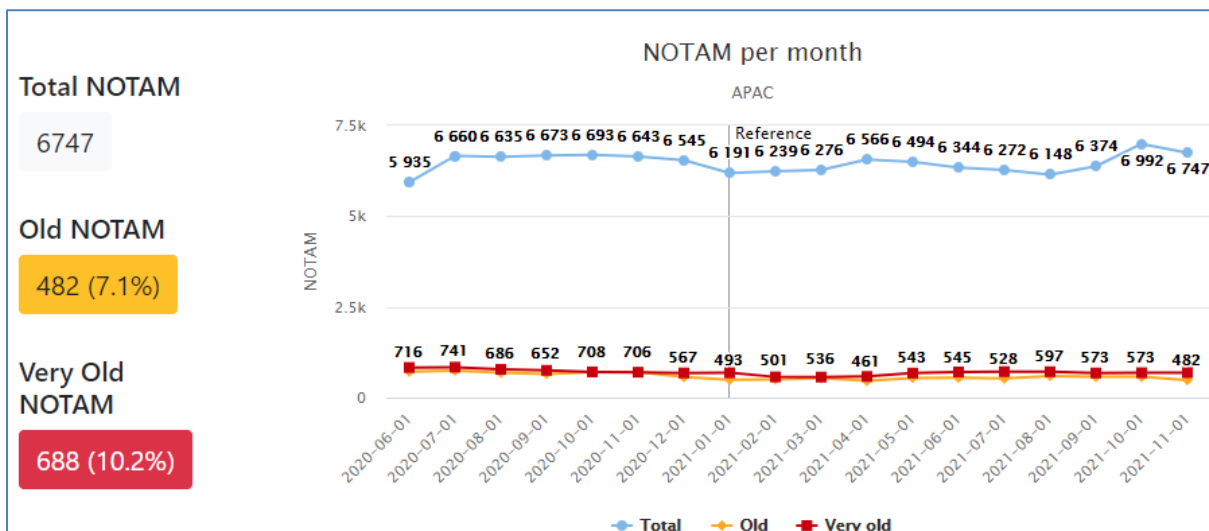


**Figure 11:** Regional Plan for Collaborative AIM - Phase I Implementation Progress (updated on 28 October, 2021)



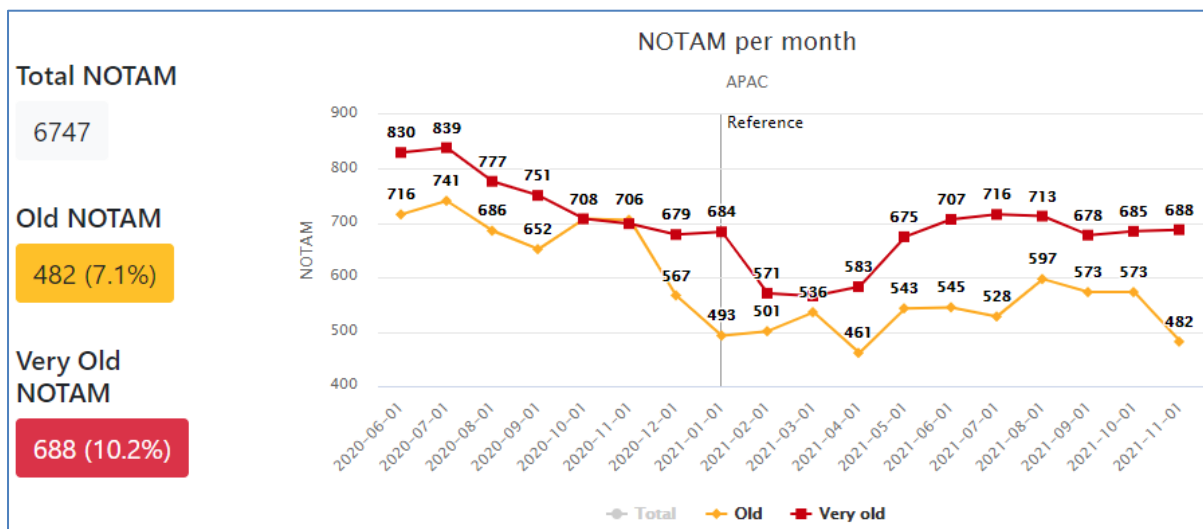
**Figure 12:** Regional Phase II Implementation Progress (updated on 28 October 2021)

2.125 AAITF/16 had discussed the proliferation of NOTAMs, using information provided by IFAIMA in collaboration with ICAO and referencing the ICAO Global Campaign on NOTAM Proliferation. **Figures 13 and 14** provide information on the total number of NOTAMs ‘old’ NOTAMs (more than three months’ duration) and ‘very old’ NOTAMs (more than one year duration) issued by APAC NOTAM Offices (NOFs).



**Figure 13:** APAC NOTAM Statistics (Total, old and very old) – 16 November 2021

Source: ICAO NOTAMETER (<https://www.icao.int/airnavigation/information-management/Pages/NOTAMeter.aspx>)



**Figure 14:** APAC NOTAM Statistics (old and very old) – 16 November 2021

2.126 ICAO reminded the meeting of SNOWTAM applicability and guidance, referring to ICAO State Letter 2020/73 which had postponed applicability of the Global Reporting Format (GRF) for runway surface conditions from 05 November 2020 to 04 November 2021. APAC regional guidance was available on the ICAO Asia/Pacific Regional Office eDocuments web-page.

2.127 Japan provided an update to the APAC Operating Procedures for Aeronautical Dynamic Data (OPADD), which were periodically updated in alignment with EUROCONTROL OPADD updates. The EUROCONTROL OPADD Edition 4.1 responded to changed ICAO provisions relating to the GRF and the associated revision of SNOWTAM format. Noting that EUROCONTROL no longer provided a MS Word version of their OPADD updates, and did not agree to amendments for any local adaptation, the meeting adopted the following technical Conclusion:

***Conclusion ATM/SG/9-5: Update Asia/Pacific OPADD***

*That,*

1. *the EUROCONTROL Operating Procedures for AIS Dynamic Data (OPADD) Edition 4.1 at ATM/SG/9 WP/34 Attachment C be adopted as the OPADD for the Asia/Pacific Region and uploaded to the Asia/Pacific Regional Office website;*
2. *the Asia/Pacific OPADD Edition 4.0 in Chapter 3 of the Guidance Manual for Aeronautical Information Services in the Asia/Pacific Region be replaced by an updated preface and a hyperlink to the uploaded document; and*
3. *States utilize the EUROCONTROL OPADD Edition 4.1 referenced in Chapter 3 of the Guidance Manual to update NOTAM systems and procedures.*

**Proposals for ATM Safety Management Activities in the APAC Region**

2.128 ICAO provided information on ATM safety management activities, with the aim of stimulating discussion on what activities should be undertaken in the region to support the application of safety risk management processes in ATM operations and projects.

2.129 The ICAO APAC Regional Sub-Office had conducted two rounds of workshops on *ATM Safety Risk Assessment in Change Management* and *Safety Culture in ATM*.

2.130 The meeting agreed to the proposal that an APAC region-wide ATM safety management survey be conducted, and that regional ATM safety management activities be continued.

### 3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

- a) note the information in this paper;
- b) note the Draft Conclusion RASMAG/26-3, to be discussed under Agenda Item 3.3;
- c) note the APAC ANP requirement that States report NANP implementation progress, and discuss the best means to support States in meeting that requirement;
- d) discuss and agree to **Draft Conclusion ATM/SG/9-1: Implementation of Efficient ATS Horizontal Separations and Transfer of Control Aircraft Spacing**;
- e) discuss and agree to Draft Decision ATM/SG/9-2: Revised ATM/SG Terms of Reference;
- f) note the current status of the update of FIR boundary descriptions in the APAC ANP;
- g) discuss and agree to the **Draft Decision ATM/SG/9-3: Combining SAIOACG and SEACG Groups to form the South Asia, Indian Ocean and Southeast Asia ATM Coordination Group (SAIOSEACG)**;
- h) note the technical *Conclusion ATM/SG/9-4: Management of Danger Areas situated over the High Seas*;
- i) note the recent and current, ongoing ATM contingency events in the APAC region;
- j) note the technical *Conclusion ATM/SG/9-5: Update Asia/Pacific OPADD*; and
- k) discuss any relevant matters, as appropriate.

— END —

## NATIONAL AIR NAVIGATION PLAN REPORTING FORM

The following indicators are based on the Basic Plan Elements (BPEs) of the Asia/Pacific Regional Air Navigation Plan, Volume II, Part I, Section 3, which should be read in conjunction with this form. The information provided will be used by the relevant Regional bodies to assess individual Administration and overall regional compliance with the Framework, and may be used by Administrations to internally evaluate their implementation status.

### INSTRUCTIONS

Using the drop down menu for each of the 10 Basic Plan Elements, please indicate implementation status with either 0 (not implemented), or 0.5 (50% implemented) or 1 (fully implemented).

**Indicate whether the State's NANP has addressed:**

**A. Background - a brief introduction aimed at high level decision-makers that describes the need for the plan with benefits and costs, including necessary for global and regional harmonization and interoperability:**

**BPE 1 - General (not necessarily quantitative) description of the Plan's benefits**

- |   |  |   |
|---|--|---|
| 1 | <i>This is mainly for top-decision-makers as an Executive Summary, and should be very clear as to the State's air navigation ambitions, the general positive outcomes expected of such planning, including the necessity for global and regional harmonization and interoperability.</i> | 0 |
|---|--|---|

**BPE 2 - General description of the costs**

- |   |   |   |
|---|---|---|
| 2 | <i>This is a matter for the State to determine, and could be in terms of quantitative, qualitative, cost of implementation or cost of <u>not</u> implementing. (Note: ICAO does not require specific details of costs from States, as this is for the State's benefits, but if States wish to share such information, this can be very helpful for other States.)</i> | 0 |
|---|---|---|

**BPE 3 - Details of how the State Plan connects to the global and regional planning hierarchy**

- |   |   |   |
|---|---|---|
| 3 | <i>This is an opportunity to describe the State's hierarchy of structures and documents, and how the NANP connects to the Asia/Pacific Seamless ANS Plan (and thus the GANP).</i> | 0 |
|---|---|---|

**B. Stakeholder Consultation - high level description of the consultation process that ensures the NANP is balanced and takes into consideration airspace users, and statements by key stakeholders of their commitment to implement and abide by the NANP:**

**BPE 4 - Description of the process used to consult with stakeholders, including the military**

- |   |   |   |
|---|---|---|
| 4 | <i>This consultation process should describe how affected users' interests are taken into account, not just by releasing information or even just the conduct of meetings, as an inclusive process of all affected stakeholders, including the public where there is an interest.</i> | 0 |
|---|---|---|

**BPE 5 - Endorsement of the Plan from key stakeholders (such as Heads of CAAs, ANSPs, military organisations, etc.)**

- 5 *This means a whole-of-government perspective, so that airspace users and public's interest is represented by a Ministerial or higher endorsement. Defence interests should also be represented; thus the NANP is an important civil-military cooperation mechanism.* 0

**C. Analysis - information on the State's analysis of each ASBU element's applicability and priority, with justification for any non-applicable elements and a comparison to the regional priority assigned by APANPIRG:**

**BPE 6 - Information on the State's analysis of all applicable ASBU and regional elements deemed to be applicable, including a statement of the State's priorities for implementation**

- 6 *The full assessments of applicability, non-applicability and priority may be provided in appendixes or if an electronic NANP is used, by links. This information is ideally provided in comparative tables showing the State's assessment of priority and how that assessment decision was made, with a comparison to the regional and/global priority. This assessment should be guided by the priorities determined by APANPIRG.* 0

**BPE 7 - Information on elements that are not applicable and the State determined it**

- 7 *While ASBU and regional elements are not binding, the reasons for the decision to not implement an element deemed to be important for global and regional harmonization and interoperability should be made clear to users of the system and ICAO. This information may be used to help ICAO amend the global and regional planning, if appropriate.* 0

**D. Planning - description of the implementation, monitoring and feedback process against the scheduled timelines:**

**BPE 8 - Description of the implementation process, such as how the different stakeholders will work together, design systems and provide feedback on the implementation**

- 8 *This is an opportunity for the State to describe how the stakeholders resource, design and interact to enable implementation, so the NANP is a means of authorizing different entities from the highest level to work collectively in the State's interest.* 0

**BPE 9 - Description of each applicable global and regional element's implementation managers (those responsible for implementation execution) and timelines**

- 9 *For an effective plan, an implementation manager/position should be assigned to monitor progress against milestones and provide feedback to stakeholders and the State. The two NANP planning parts may be combined to describe the Who, What, Where, When, How and With Whom components in one place for each element.* 0

**E. Progress - the progress of implementation against the planning timelines:**

	<b>BPE 10 - Details in State Plan as to the progress of the implementation against the planning timelines</b>	
10	<i>Information on progress should allow a reader of the NANP to understand the progress against the milestones and element implementation, and ideally, an overall implementation estimate of the State's applicable elements.</i>	0
	Total	0

**DRAFT AMENDMENT -Terms of Reference**

**AIR TRAFFIC FLOW MANAGEMENT STEERING GROUP (ATFM/SG)**

1. Having considered relevant documents such as the *Manual on Collaborative Air Traffic Flow Management* (Doc 9971), regional air traffic data and the Asia/Pacific Region city pairs and associated airspace and ATS routes and aerodromes experiencing the most significant traffic demand, and noting the Asia/Pacific Seamless ATM Plan provisions for structural airspace capacity increasing measures, develop an Asia/Pacific Regional ATFM Framework which addresses ATFM implementation and ATFM operational issues in the Asia/Pacific Region;
2. Identify, research and recommend appropriate guidance regarding:
  - a. capacity assessment and adjustment mechanisms;
  - b. regular review for all aerodromes and ATC sectors where traffic demand is expected to reach capacity, or is resulting in traffic congestion;
  - c. mechanisms for ATFM and A-CDM data gathering, collation and sharing between States, International Organizations and ICAO, which may include;
    - i. capacity assessments, including factors affecting capacity such as special use airspace status, runway closures and weather information;
    - ii. traffic demand information which may include flight schedules, flight plan data, repetitive flight plan data as well as associated surveillance updates of flight status; and
    - iii. ATFM Daily Plan;
  - d. compliance by airspace and aerodrome users with ATFM and A-CDM measures; and
  - e. any other guidance relevant to the Regional ATFM Framework and Asia/Pacific A-CDM Implementation Plan.
3. Maintain an overview of CDM/ATFM and A-CDM programs being conducted within the Region, with a view to facilitating their coordination and alignment, and to promote;
  - a. harmonized procedures;
  - b. Implementation of the performance expectations of the Regional ATFM Framework and Asia/Pacific A-CDM Implementation Plan;
  - c. Interoperability of A-CDM with ATFM
4. Review the effectiveness of existing and planned ATFM and A-CDM programs in the Asia and Pacific Region, and make specific recommendations regarding ATFM, including any adjacent airspace affecting the Asia and Pacific Regions, and research and recommend appropriate mechanisms for the on-going review of such programs.

5. The Group coordinates closely with other relevant bodies such as ~~the Airport Collaborative Decision Making Task Force (APA-CDM/TF)~~, Airport Operations and Planning Sub-Group, the Meteorological Requirements Working Group (MET/R WG) and System-Wide Information Management Task Force (SWIM TF).
  
6. The Group reports to the ATM Sub-Group.

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DRAFT

## Lahore-Karachi-Delhi FIRs

### Background

During the APAC RAN/1 Meeting held in 1973, the meeting had noted that Pakistan was providing flight information and other air navigation services within a portion of airspace over Jammu and Kashmir State which is shown in the ICAO MID/SEA Air Navigation Plan Publication under the Delhi FIR. The Meeting recognized that the area within which air traffic services are provided by Pakistan should be delineated. The Meeting recommended-

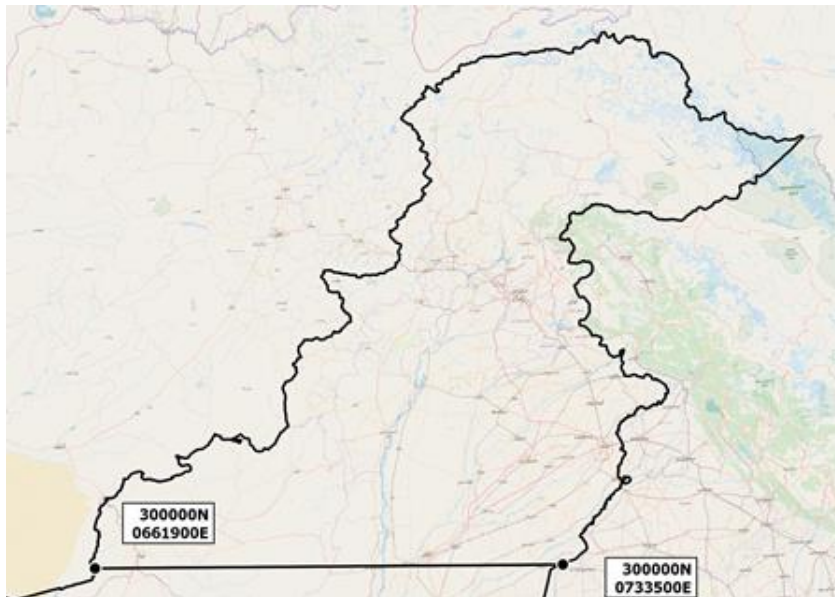
### **Recommendation 7/7 - Boundaries of Delhi and Lahore FIRs**

That the Government of India and Pakistan arrange an early meeting with a view to delineating the boundaries of the Delhi and Lahore Flight Information Region.

### Current Situation

In April 2019, Pakistan had submitted a PfA with the following Lahore FIR description (**Figure 1**):

30 00 00 N, 073 35 00 E  
30 00 00 N, 066 19 00 E  
thence following the national boundary to  
30 00 00 N, 073 35 00 E.

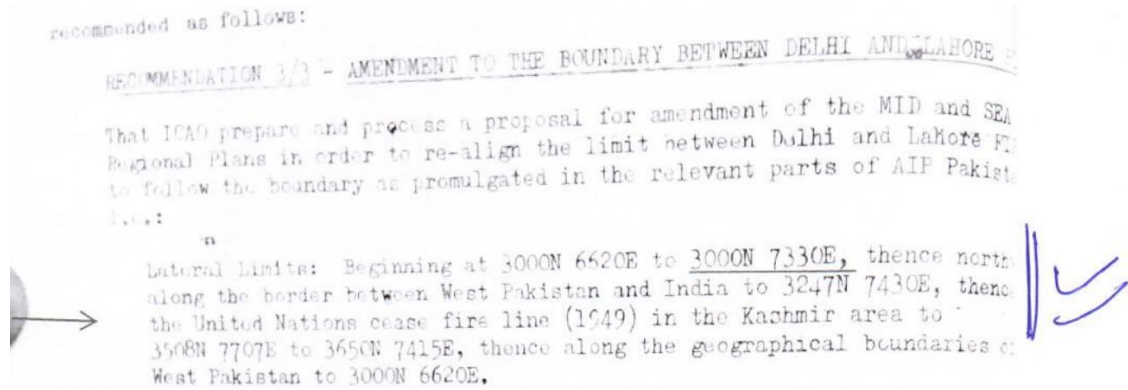


**Figure 1:** Pakistan's PfA Image

The PfA was circulated to ICAO HQ and was approved, as it aligned with the records held by HQ and the Geographic Information Service (GIS). Subsequently, the PfA had been circulated to APAC States and International Organizations (IOs) for comments in March 2020. The following comments were received from India in April 2020:

*Reference may please be made to ICAO APAC State letter T 3/2.6, T 3/3.6.21- AP058/20 (ATM) (Serial No: APAC 19115-ATM) dated 12th March, 2020 regarding Lahore FIR and copy of the same is attached herewith for ready reference.*

The proposal was examined with documents from India, which included a copy of a Middle East (MID) RAN Meeting held in Geneva, 4 - 23 October 1965 (eight years before the APAC RAN 1 Meeting). It was observed that the coordinates highlighted above differed from the coordinates recommended in MID RAN Meeting. The MID RAN meeting held in 1965 agreed to a recommendation 3/3) realignment of Lahore FIR of Pakistan to 30 00 N, 073 30 E and 30 00 N, 66 20 E (**Figure 2**).



**Figure 2:** MID RAN Meeting, 1965

The MID RAN Meeting Reported had also noted that:

*The Committee, having been advised of an agreement between India and Pakistan to re-align the boundary between Karachi and Delhi and Bombay along the national border of Pakistan, agreed to revise the Regional Plans accordingly.*

Notwithstanding this, it is unclear from the records the nature of the agreement between Pakistan and India reported to the 1965 MID RAN Meeting. It is further noted that during the period from 1965 to 1973 there had been two major wars between Pakistan and India, which could have affected the boundary.

### ICAO Proposal

ICAO propose to solve this mismatch between RAN meeting outcomes in terms of the 30 00 N, 073 30 E coordinate through bilateral negotiation between India and Pakistan, facilitated if necessary by the Regional Office and APANPIRG. ICAO noted that the national border is between the two coordinates that each nation recognizes – at approximately 30 00 00 N, 073 32 42 E (**Figure 3**).



**Figure 3:** National Border, Pakistan - India

Regarding the 30 00 00 N, 066 19 00 E coordinate between the Tehran and Karachi/Lahore FIRs, this will be double-checked with the ICAO MID regional Office as is not a matter for dialogue with India.

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## Kolkata-Dhaka-Yangon FIRs

### Background

According to the historical records for the Kolkata FIR (previously, Calcutta), and the Yangon FIR (previously, Rangoon), the 1973 Regional Air Navigation Meeting (RAN/1) provided some definitions as follows (**Figure 1**):

- x) Amend the boundaries of the Madras, Calcutta and Rangoon FIRs as follows:
- ✓ FIR Madras : Eastern boundary: 1630N 8300E, 1400N 9200E, 1330N 9425E, 0600N 9425E, 0600N 9200E, 1000N 9200E
  - ✓ FIR Calcutta - Southern boundary: 1630N 8300E, 1400N 9200E  
Western boundary: 2500N 8200E, 1715N 8200E
  - ✓ FIR Rangoon - Western boundary: 2100N 9200E, 1400N 9200E, 1330N 9425E, 1000N 9425E.

**Figure 1:** RAN 1 Meeting Report Excerpt

At the 1993 RAN/3 Meeting, the Calcutta FIR was amended, the Dhaka FIR was mentioned (but only so far as its southern boundary was defined), and there were also amendments to the Yangon FIR (**Figure 2**):

### **Recommendation 5/7 - Realignment of Calcutta, Dhaka, Madras and Yangon FIR boundaries**

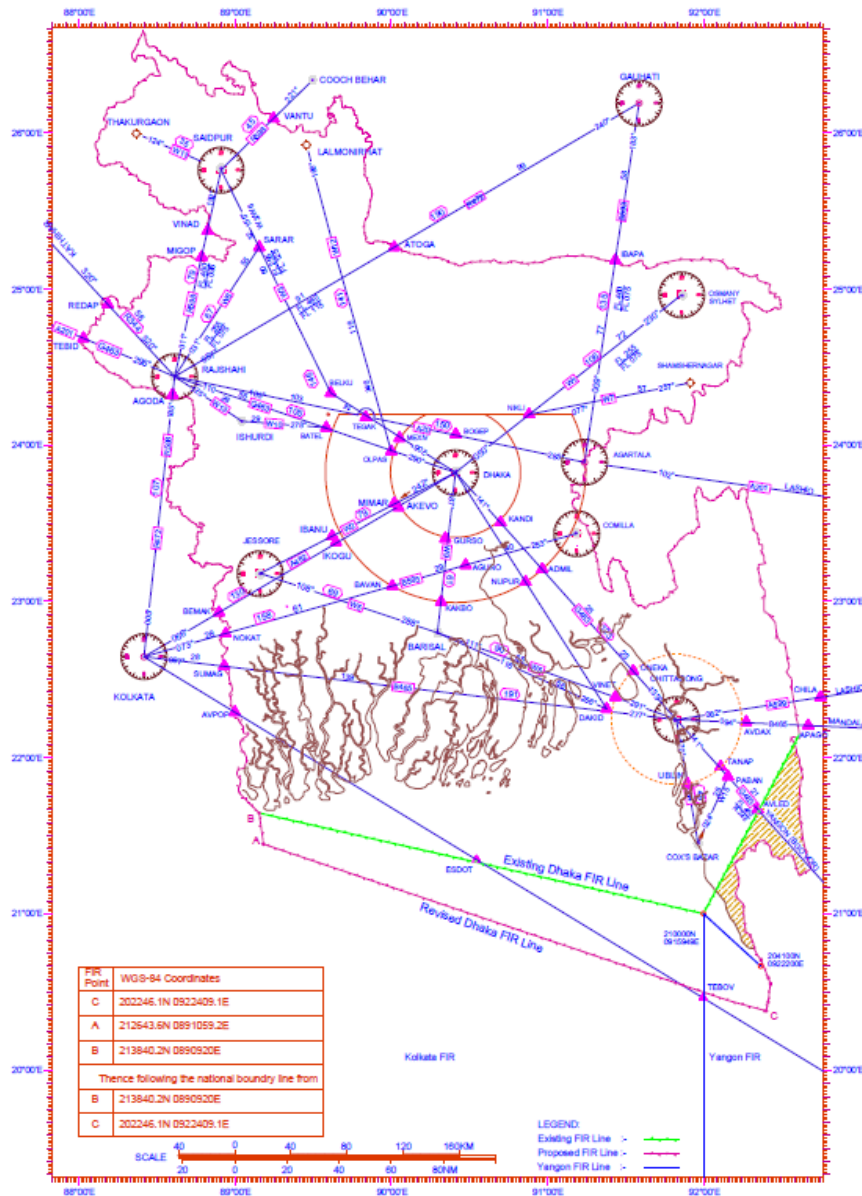
That the ICAO *Air Navigation Plan – Middle East and Asia Regions* (Doc 8700) be amended as follows:

- ✓ a) Amend Calcutta flight information region (FIR) boundary as follows:  
  
Beginning of the intersection of the 08340E meridian with the common border of India/Nepal, then East along the border of India/Nepal to the point on common border of Nepal/China/India, then along the border of India/China to the point on common border of India/China/Myanmar, then along the border of India/Myanmar to 2157N 09232E, then North along the common border of India/Bangladesh to 2138N 08910E to 2000N 09200E then South along 09200E meridian to 1400N 09200E to 1630N 08300E to 1715N 08200E to 2500N 08200E to 2500N 08300E to 2710N 08300E to 2715N 08340E, then along the 08340E meridian to its intersection with the common border of India/Nepal.
- ✓ b) Amend the southern boundary of Dhaka FIR as follows:  
  
2138N 08910E to 2000N 09200E to 2100N 09200E to 2157N 09232E.
- ✓ c) Amend Yangon FIR boundary as follows:  
  
Straight lines joining 2100N 09200E, 2157N 09232E, thence North along the border of India/Myanmar to the point on common border of China/India/Myanmar, then along the border of China/Myanmar to the point of common border of China/Lao PDR/Myanmar, then along the border of Lao PDR/Myanmar to the point of common border of Lao PDR/Myanmar/Thailand, then along the border of Myanmar/Thailand to 1000N 09830E to 1000N 09600E to 1100N 09425E to 1330N 09425E to 1400N 09200E to 2100N 09200E.
- ✓ d) Amend the eastern boundary of Madras FIR as follows:  
  
From 0600N 09425E to 1000N 09425E to 1000N 09600E to 1100N 09425E to 1330N 09425E.

**Figure 2:** RAN/3 Meeting Report Excerpt

Current Situation

Bangladesh submitted a Proposal for Amendment (PFA) for the Dhaka Flight Information Region ( FIR) in February 2019, with the intention of re-aligning the FIR (**Figure 3**).



**Figure 3:** Bangladesh’s Pfa Proposal

During informal discussions pre-circulation of the Pfa, the proposal was not accepted by India and Myanmar, as there had been no prior formal discussion between the three States.

During the ATM/SG/7 (August 2019), Bangladesh approached ICAO for advice. ICAO informed Bangladesh that the delineation of FIR should be based on technical and operational reasons. In order to achieve re-alignment, Bangladesh would have to justify technically and operationally that it would be an improvement over the high seas (international airspace) portion of the proposal, as is always the case.

Bangladesh informed ICAO that they would discuss this matter with India and Myanmar during the BIMT/7 meeting (February 2020, Dhaka).

ICAO requested updates from Bangladesh in October 2020 and the following comments were received:

*Although India is not seeking to alter/realign Kolkata FIR's dimensions, but the submitted Pfa has some coordinates which are inside the Sovereign airspace of Bangladesh territory.*

*Your good office is well informed about Bangladesh FIR issue, specifically some portion of sovereign airspace of Bangladesh which is not included in existing Dhaka FIR. As advised by ICAO APAC office, we have started initiatives to resolve the issue through Diplomatic channel. But there are no responses from both of the States.*

*In light of above, we would like to request you to hold up the FIR Pfa of Kolkata and Myanmar.*

### ICAO Proposal

ICAO had stated on several occasions to the parties that the current FIR review process was focused on the validation of the current FIR, and this any proposed changes should be managed with a subsequent Pfa.

ICAO proposed to solve the identification of the two key coordinates where the national boundaries meet the coastline (possibly Points B and C on **Figure 3**, to be confirmed), in order to resolve the current FIR definitions by bilateral confirmation of these points between Bangladesh and India, and between Bangladesh and Myanmar.

However, as previously noted, Bangladesh had been conducting this discussion through ‘diplomatic’ channels, which may take a very long time. Without a volume being formally recognized in the APAC Regional Air Navigation Plan, there were significant potential legal consequences. Furthermore, ICAO noted that FIRs are concerned about Air Traffic Services (ATS) service volume, so are not necessarily aligned with sovereign airspace, and even less so for an Exclusive Economic Zone (EEZ), which has no consequences for airspace.

Therefore, ICAO recommends that the bilateral discussion between Bangladesh and India, and between Bangladesh and Myanmar should be conducted with these points in mind, and in accordance with any expectations from APANPIRG.

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## Khabarovsk-Fukuoka FIRs

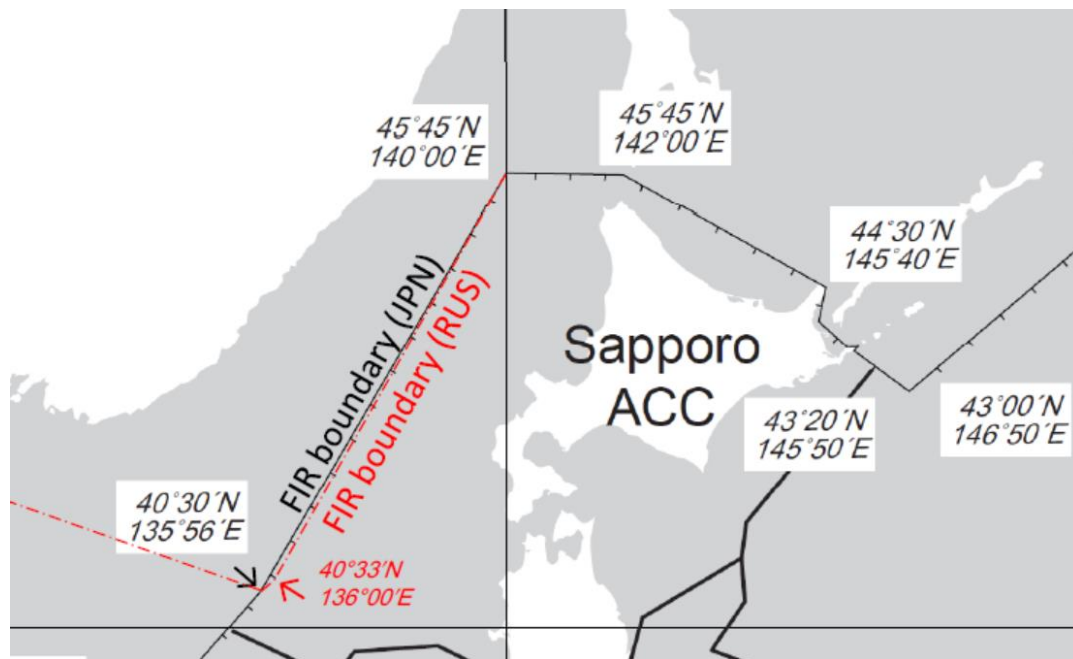
### Background

In 1996, the boundary between the Pyongyang FIR and Vladivostok (current Khabarovsk) FIR was changed. One of the points was N40°30' E135°56'. However, at that time, Japan did not amend its Aeronautical Information Publication (AIP). Japan and Russia then found a difference in coordinates of the Tokyo (current Fukuoka)/ Yuzhno-Sakhalinsk (current Khabarovsk) FIR

in 2002, Japan also found that the boundary between Tokyo/ Vladivostok FIR was different. Then, ICAO (Headquarters) found that the coordinates were different in ANPs of ASIA/PAC and EUR and concluded that the coordinates in ASIA/PAC ANP were correct and in EUR ANP were wrong. In response to the conclusions of ICAO, Japan amended the AIP.

Japan noted that from 16 – 18 June 2014, the Japan-Russia ATC Operation Working Group Meeting had held in Khabarovsk. In coordination of the agenda, Japan found that some coordinates of FIR boundary between Fukuoka and Khabarovsk were different in Japanese and Russian AIPs. Japan gave notice of it to Russia immediately, and the parties agreed to investigate the facts.

In the Japanese AIP, the FIR boundary is shown as “N45°45' E140°00', N40°30' E135°56', N38°38' E133°39', ...”. In Russian AIP, is shown as “N45°45' E140°00', N40°33' E136°00', N40°30' E135°56', N41°40' E131°31', ...” (**Figure 1**).



**Figure 1:** FIR Boundary Difference – Khabarovsk and Fukuoka FIRs

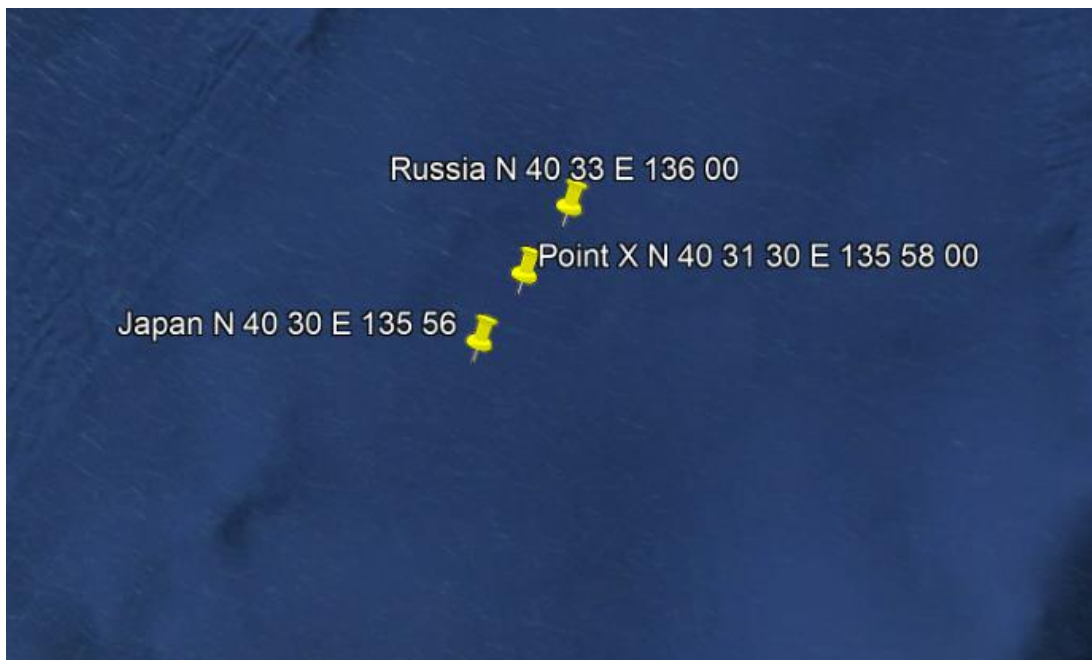
### Current Situation

As it appears that the Council had approved, first for Japan and then for Russia, two separate PfAs with different boundary coordinates, the ICAO Regional Office had communicated with ICAO HQ to request advice on whether this matter would be resolved by HQ or by the Regional Offices involved. ICAO HQ advised that it would be preferable for the Regional Offices to coordinate to resolve the situation.

### ICAO Proposal

ICAO proposes that the Russian Federation and Japan discuss the small difference in the single coordinate under the auspices of the ICAO European and North Atlantic (EUR/NAT) Office and Asia and Pacific (APAC) Offices, to determine which coordinate should be acceptable to the parties, either –

1. the Japanese coordinate (as approved by the President of the Council on 04 November 1996 as APAC 96/5 (**Figure 3**) and later in APAC 05/1-ATS related to the consolidation of the Tokyo and Naha FIR to Fukuoka FIR); or
2. the coordinate used by the Russian Federation (as approved by the President EUR/NAT 08/11-ATS on 03 September 2009); or
3. a compromise such as that shown in **Figure 2**.



**Figure 2:** Point X

**Proposal for Amendment of Air Navigation Plan  
(Serial No. APAC 96/5 - ATS)**

- a) **Plan:** MID/ASIA, Doc 8700, as amended by the ASIA/PAC RAN/3 Meeting, Bangkok, 19 April - 7 May 1993 (Doc 9614, ASIA/PAC/3) and EUR, Doc 7754, as updated by Amendment No. 22 dated 25 September 1994
- b) **Proposed amendment** Amend the requirement for the common boundary between Pyongyang and Vladivostok flight information regions (FIRs) as follows;  
  
Along the State frontier between the Democratic People's Republic of Korea and the Russian Federation to the point 4217.6N 13041.8E and further along straight lines connecting this point with the following points: 4209.0N 13053.0E to 4140.0N 13131.0E to 4030.0N 13556.0E.  
  
(cf. Doc 8700 Chart ATS 1, ATS 2, ATS 3 and ATS 3B)  
(cf. Doc 7754 Chart ATS 1C)
- c) **Originated by:** Democratic People's Republic of Korea and Russian Federation.
- d) **Originator's reasons for amendment:** To realize more economic and safe international ATS routes for the development of international civil aviation in the future.
- e) **Intended date of implementation:** Upon approval of the Council
- f) **Proposal circulated to the following States and International Organizations:**
- |   |                      |
|---|----------------------|
| Canada                                  | Republic of Korea    |
| China                                   | Russian Federation * |
| Democratic People's Republic of Korea * | United States        |
| Japan                                   | IATA                 |
|   | IFALPA               |

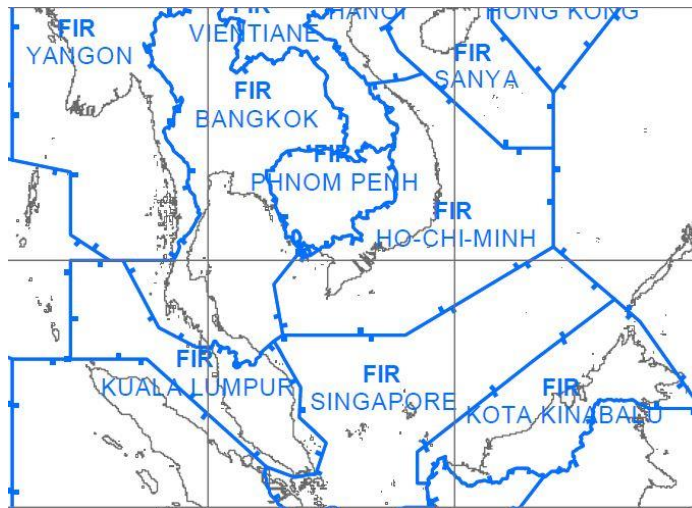
\* For information only

Figure 3: APAC 96/5

## Bangkok-Phnom Penh-Ho Chi Minh FIRs

### Background

The Phnom Penh FIR has never been formally designated by a Regional Air Navigation (RAN) Meeting or a Proposal for Amendment (PfA) to the Regional Air Navigation Plan (RANP). The only reference in ICAO formal documents is in ICAO Doc 7030 – Regional Supplementary Procedures, which shows the Phnom Penh FIR being only over the mainland portion of Cambodia’s territory (**Figure 1**).



**Figure 1:** Doc 7030 Excerpt

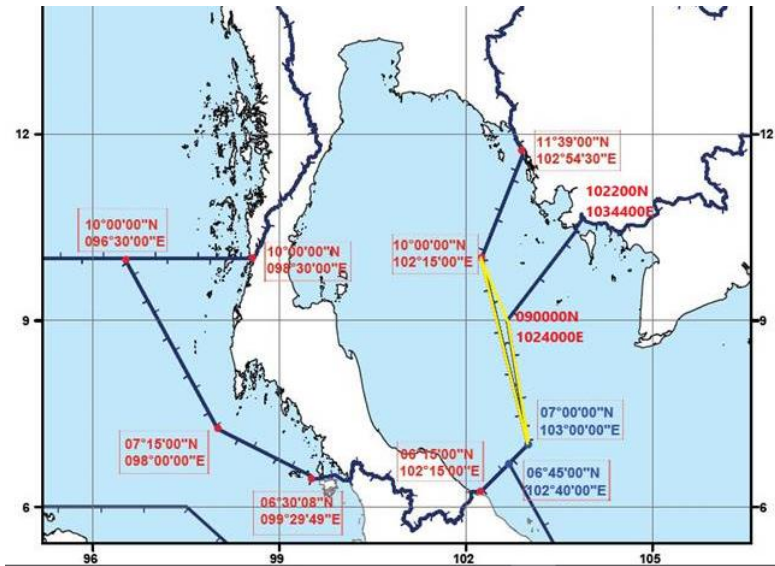
The informal (and often incorrect) ICAO Geographic Information Service (GIS) maps show an extension of the Phnom Penh FIR over Sihanoukville Province’s islands (**Figure 2**).



**Figure 2:** ICAO GIS Excerpt

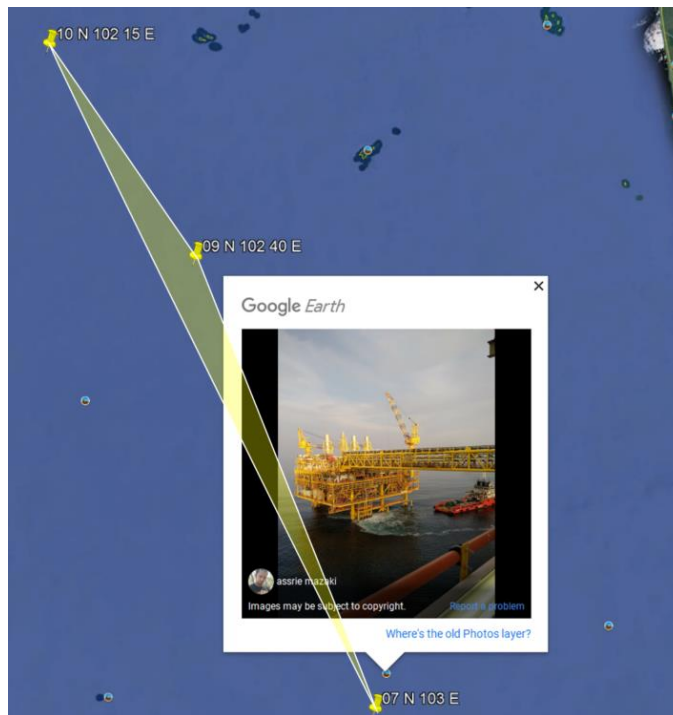
Current Situation

In addition to the extension over the Sihanoukville Province’s islands, Cambodia have submitted a PfA that also includes a ‘sliver’ of airspace to position 07°N, 103°E, shown outlined in yellow (**Figure 3**).



**Figure 3:** Airspace ‘Sliver’ Extension

There does not appear to be any sovereign territory within the ‘sliver’ of airspace. It should be noted that under the UN Convention on the Law of the Sea, artificial islands and installations such as oil rigs are not taken into account to determine sovereign territory UNCLOS Article 60, Section 8). In any case, there did not appear to be any oil rigs within the airspace concerned (**Figure 4**).



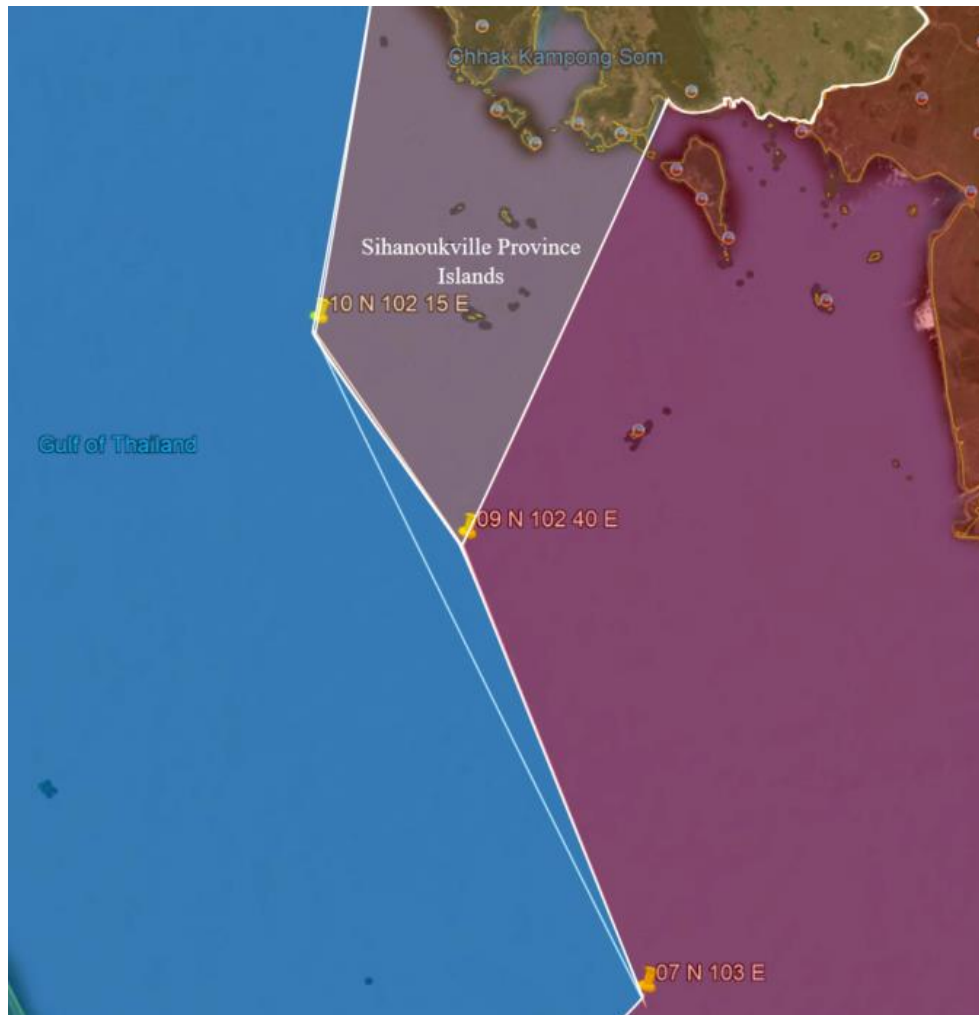
**Figure 4:** Airspace Sliver Enlargement

Cambodia advised that the sliver of airspace had been historically ‘delegated’ to the Ho Chi Minh Area Control Centre (ACC) and had been ‘returned’ to the Phnom Penh ACC on 10 November 2016 by a Letter of Agreement (LOA). As the airspace concerned over the high seas had not been delegated to Cambodia by the ICAO Council, there does not appear to be any legal basis on which Cambodia, and then Viet Nam concerned ‘delegated’ the airspace.

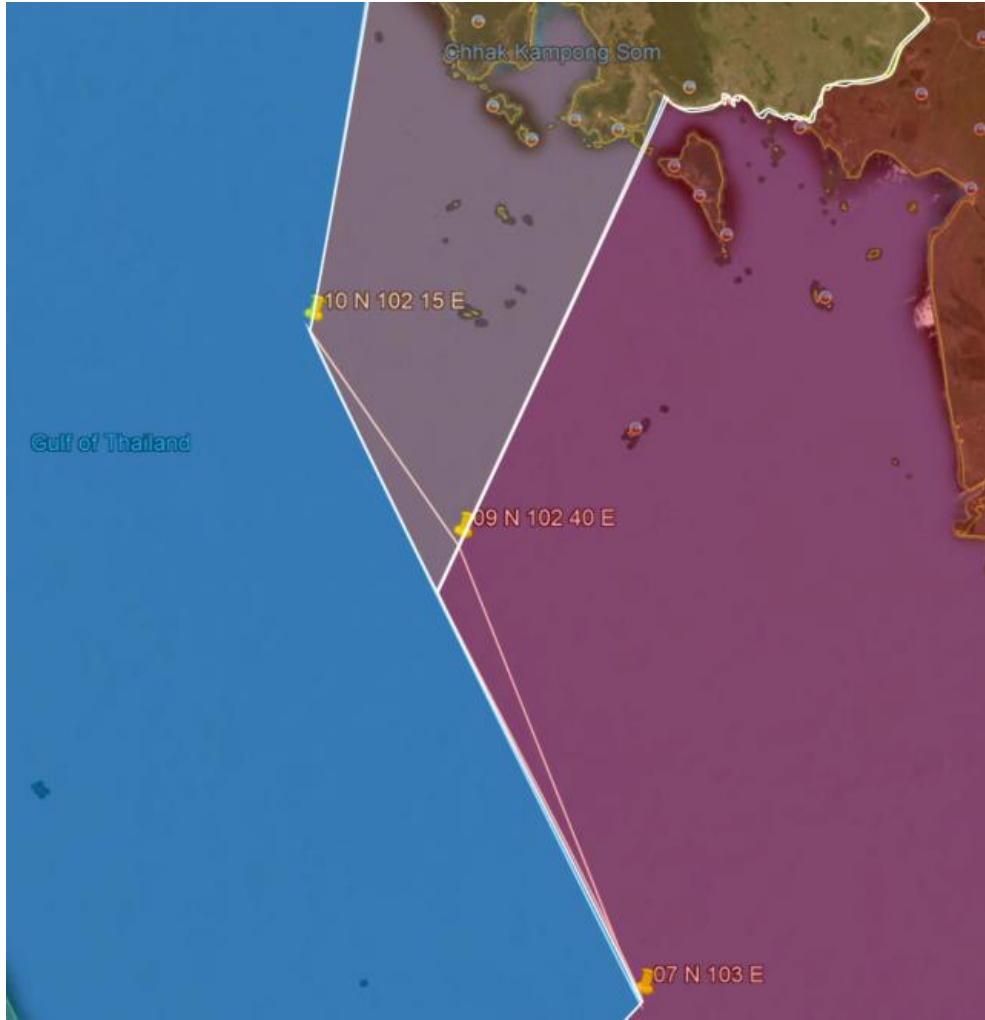
### ICAO Proposal

ICAO has no objections to the extension of the Phnom Penh FIR to encompass the Sihanoukville Province’s islands. However, ICAO had not determined any operational or technical basis for the ‘sliver’ of airspace extension to be part of the Phnom Penh FIR. Moreover, this airspace is an potential impediment to safe and efficient air traffic in terms airspace complexity and unnecessary airways charges.

ICAO proposes that the Phnom Penh be established either extending to 10 N, 102 15 E – 09 N, 102 40 E to encompass the Sihanoukville Province’s islands with the Bangkok ACC providing services within the ‘sliver’ of airspace (**Figure 5**), or as a second option, or slightly beyond this as shown in **Figure 6** if Viet Nam and Cambodia share provision within this airspace. The States should discuss this and advise ICAO.



**Figure 5:** Bangkok ACC Option



**Figure 6:** Phnom Penh/Ho Chi Minh ACCs Option

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**DRAFT**

**TERMS OF REFERENCE**

**South Asia, Indian Ocean and Southeast Asia ATM Coordination Group (SAIOSEACG)**

- 1) The objective of the SAIOSEACG is to identify the need for, plan and implement Air Traffic Management (ATM) improvements in the Indian Ocean, South Asia and Southeast Asia areas.
- 2) To meet this objective, the Group shall:
  - a. Promote and facilitate implementation of the provisions of ICAO Doc 7030 – *Regional Supplementary Procedures* and the *Asia/Pacific Regional Air Navigation Plan*, and the performance expectations of the *Asia/Pacific Seamless ANS Plan*, by:
    - i. reviewing and recommending improvements to airspace and Air Traffic Services (ATS) route structures, in order to optimise safety and efficiency;
    - ii. review and recommend improvements to ATS facilities such as communication and surveillance capability in support of flight operations; and
    - iii. research and plan airspace and facility requirements based on future technologies, Performance-based Navigation (PBN) and other advanced capabilities;
  - b. Assist SAIOSEACG Administrations in the development of action plans to rectify APANPIRG Air Navigation Service (ANS) Deficiencies.
  - c. coordinate and collaborate with other APANPIRG groups and relevant technical groups from other ICAO regions as required; and
  - d. form Small Working Groups as required to conduct specific ATM-related projects.
- 3) The SAIOSEACG reports to the Air Traffic Management Subgroup of APANPIRG (ATMSG).

SAIOSEACG comprises representatives from the following, but not limited to Afghanistan, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Hong Kong China, Macao China, India, Indonesia, Lao PDR, Malaysia, Maldives, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Singapore, Sri Lanka, Thailand, Timor-Leste, Viet Nam, CANSO, IATA, IFALPA and IFATCA.

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**South Asia/Indian Ocean ATM Coordination Group (SAIOACG) Terms of Reference**

- 1) The scope and objective of the SAIOACG is to identify, plan and implement Air Traffic Management improvements within airspace serving the Asian Regional Major Traffic Flows:
  - AR- 2 (Europe – Southeast Asia);
  - AR- 4 (Middle East – Southeast Asia/Australia); and
  - AR- 5 (Africa – Southeast Asia/Australia).
  
- 2) To meet this objective the Group shall:
  - a. review and recommend improvements to relevant airspace and ATS route structures, in order to optimize the safety and efficiency of ATC operations;
  - b. review and recommend improvements to ATS facilities such as communication and surveillance capability in support of flight operations;
  - c. research and plan airspace and facility requirements based on future technologies, Performance Based Navigation and other capabilities that enhance flight operations;
  - d. coordinate with other bodies to establish appropriate navigation specifications;
  - e. identify ATM deficiencies with respect to ICAO Standards and Recommended Practices (SARPs), and make recommendations to achieve compliance;
  - f. cooperate with other bodies as required, to facilitate Seamless ATM;
  - g. create working groups as required to manage specific ATM-related projects; and
  - h. research and recommend appropriate means of minimizing the environmental consequences of flight operations.

3) The SAIOACG reports to the ATM Subgroup of APANPIRG.

The membership of the SAIOACG is open to States that provide ATS within the scope of airspace of SAIOACG, International Organizations and ICAO. The membership is also open to participants from outside the airspace or organizations that can contribute to SAIOACG by invitation from SAIOACG (such as military organizations that can facilitate civil/military cooperation).

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## **Terms of Reference**

### **South-East Asia ATM Co-ordination Group (SEACG)**

1. Terms of Reference of SEACG:
  - A. Identify current problems or deficiencies in ATM being experienced in the Southeast Asia area;
  - B. Develop solutions to resolve noted problems or deficiencies that do not require long-range planning in the Southeast Asia area;
  - C. Prepare a co-ordinated action plan with time lines for implementation of the agreed actions in a manner that is harmonized with adjacent regions, consistent with ICAO SARPs and Global Air Navigation Plan (Doc 9750);
  - D. Make specific recommendations to the APANPIRG through the ATM/AIS/SAR Sub-Group, aimed at improving ATM/AIS/SAR services within the South East Asia Region and the adjacent Regions.
  - E. Report to the ATM/AIS/SAR Sub-Group of the APANPIRG
  
2. The SEACG comprises representatives from the following, but not limited to:

Australia, Brunei Darussalam, Cambodia, China, Hong Kong China, Indonesia, Japan, Lao PDR, Malaysia, Papua New Guinea, Philippines, Singapore, Thailand, Viet Nam, IATA, IFALPA, IFATCA, ARINC and SITA.

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Approved by ATM/AIS/SAR SG/20, Decision SG 20/11, July 2010