INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE THIRTEENTH MEETING OF THE FANS INTEROPERABILITY TEAM-ASIA (FIT-ASIA/13)

BANGKOK, THAILAND
06 to 09 JUNE 2023

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

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

CONTENTS

APPENDIXES

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INTRODUCTION

Meeting

1.1 The Thirteenth Meeting of the FANS Interoperability Team – Asia (FIT-Asia/13) was held in Bangkok, Thailand from 06 to 09 June 2023.

Attendance

2.1 A total of 38 participants from 10 Administrations, two International Organizations, and two Industry partners, including China, India, Indonesia, Japan, Malaysia, New Zealand, Singapore, Sri Lanka, Thailand, United States, IATA, Boeing, Inmarsat, and ICAO were registered for the FIT-Asia/13 meeting. The list of participants is provided at **Appendix A** to this report.

Officers and Regional Office

3.1 Mr. Hong Yang, Engineer, China Regional Monitoring Agency, chaired the meeting. He was assisted by Mr. Kwek Chin Lin, former chair of the FIT-Asia.

3.2 Mr. Hiroyuki Takata, Regional Officer ATM, ICAO Asia/Pacific (APAC) Office, was Secretary of the meeting. He was assisted by Mr. Shane Sumner, Regional Officer ATM/AIM, Mr. Weng Kit Ying, ATM Officer, and Dr. Prakayphet Chalayonnawin, Programme Analysis Associate ATM.

Opening of the Meeting

4.1 On behalf of Mr. Tao Ma, Regional Director, ICAO Asia and Pacific Region, Mr. Hiroyuki Takata welcomed all participants.

Documentation and Working Language

5.1 The working language of the meeting and all documentation was English. There were 18 Working Papers (WP), four Information Papers (IP), two Presentations, and two flimsies were presented for considered by the meeting.

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

Draft Conclusions, Conclusions, Draft Decisions and Decisions of FIT-Asia – Definition

6.1 FIT-Asia records its actions in the form of Draft Conclusions, Draft Decisions and Decisions within the following definitions:

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

b) **Conclusions** deal with matters of a technical nature relating to regional guidance material for publication on the ICAO Asia/Pacific Regional Office website.

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

d) **Decisions** of FIT-Asia that relate solely to matters dealing with the internal working arrangements of FIT-Asia

List of Draft Conclusions/Decisions and Conclusions/Decisions

7.1 List of Draft Conclusions and Draft Decisions

<table>
<tr><td colspan="3">Draft Conclusion FIT-Asia/13-1: Revised Survey of the Status of Current and Planned Implementation of Performance-Based Separation Minima</td></tr>
<tr><td colspan="2">What:
That: The revised Survey of the Status of Current and Planned Implementation of Performance-Based Separation Minima at Appendix D to the Report be uploaded to the ICAO Asia/Pacific Regional Office website to replace the existing.</td><td>Expected impact:
☐ Political / Global
☐ Inter-regional
☐ Economic
☐ Environmental
☒ Ops/Technical</td></tr>
<tr><td>Why: to rationalize and simplify the survey questions.</td><td colspan="2">Follow-up: ☒Required from States</td></tr>
<tr><td>When: 9-Jun-23</td><td colspan="2">Status: Draft to be adopted by Subgroup</td></tr>
<tr><td colspan="3">Who: ☒Sub groups ☒APAC States ☐ICAO APAC RO ☐ICAO HQ ☐Other: XXXX</td></tr>
</table>

7.2 List of Conclusions and Decisions

Nil

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REPORT ON AGENDA ITEMS

Agenda Item 1: Election of Chair/Adoption of Agenda

Election of Chair

1.1 Mr. Hong Yang was elected as the Chair of the FIT-Asia meeting for four years from 2023.

Adoption of Agenda

1.2 The FIT-Asia/13 agenda (WP/1) was adopted by the meeting.

Agenda Item 2: Central Reporting Agency Reports

FANS Interoperability Team (FIT) Central Reporting Agency (CRA) Problem Report Briefing (WP/2)

2.1 The FIT-Asia CRA provided information describing the investigation and resolution of submitted Air Traffic Services (ATS) data link problem reports relevant to the FIT-Asia States. ATS data link stakeholders could submit Problem Reports (PRs) for investigation through the FANS-CRA website (http://www.fans-cra.com/).

2.2 **Figure 1** illustrated the number of PRs submitted by the FIT-Asia States per calendar year since 2016.

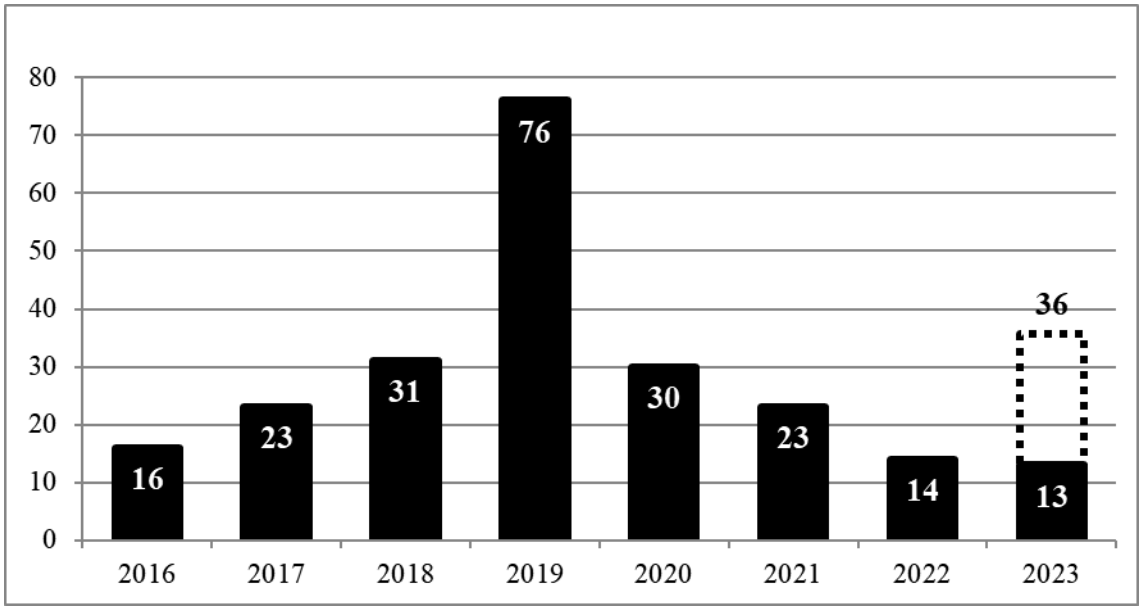

Figure 1: PRs per Year

2.3 The CRA updated the status or progress of the following old PRs that had occurred in the FIT-Asia States.

- 3341-CJ: Closed – Monitoring / TBA

2.4 The meeting was informed that some avionics software updates for Boeing aircraft had become significantly delayed due to new cybersecurity requirements for certification. The below tentative schedule was introduced by the CRA.

- B757/767 Pegasus I BP11 software updates: June 2023
- B747 NG FMC BP4.1: Q2 2024
- B777 AIMS BPV18, including the ACARS Routing Airborne Time 1 (RAT1): Q3 2024

2.5 The CRA investigated the following significant new PRs that occurred in the FIT-Asia States.

- 3416-MM, 3417-MM, and 3418-MM: Closed / Multiple
- 3419-MM: Active / Multiple
- 3420-MM: Active / Air – Technical
- 3421-MM: Closed as Duplicate / Multiple
- 3491-NI: Active / TBA
- 3498-RA, 3499-RA, and 3501-NI: Closed as Duplicate / Multiple
- 3502-MM, 3503-MM, and 3504-MM: Closed / Multiple
- 3522-MM: Closed as Duplicate / Multiple

2.6 The meeting was informed that CPDLC messages and ADS-C reports via the IGW1 (Iridium SATCOM via SITA) and IG1 (Iridium SATCOM via ARINC) paths did not meet the respective Required Communications Performance (RCP)240 95% transaction time and Required Surveillance Performance (RSP)180 95% delivery time requirements. Poor time performance was generally caused by aircraft transitioning from using VHF to using Iridium SATCOM while crossing the gap in VHF datalink coverage across the South China Sea. The CRA encouraged aircraft operators to install ACARS avionics software with the RAT1 function to ensure that aircraft would meet RCP240 and RSP180 time requirements during transitions from VHF to SATCOM.

2.7 The meeting was informed that the CRA could not thoroughly investigate some PRs because the dates of poor performance occurred too long before the PRs were submitted for relevant Communications Service Provider (CSP) and avionics logs to be available. Since CSP and avionics logs would be available for a limited period of time, Air Navigation Service Providers (ANSPs) were urged to take necessary actions promptly, including submitting PR.

2.8 The CRA informed the meeting that PBCS monitoring should be performed and reported against individual aircraft (airframes), not against ground station paths. However, until the PBCS Manual included such a statement, the meeting agreed upon providing the CRA with ground-station path-related PRs.

2.9 The CRA investigated the following significant new PRs that occurred in other areas around the world but were relevant to the FIT-Asia.

- 3347-MM, 3371-MM, 3449-RA, and 3481-RA: Open / Ground – Technical
- 3411-CJ, 3455-CJ, 3470-RA, and 3471-MM; Closed / Ground – Technical
- 3244-MM: Closed / TBA
- 3245-MM: Closed / TBA
- 3340-CJ: Active / TBA
- 3341-CJ: Active / TBA
- 3373-KS: Closed / None

2.10 The meeting was informed that the North Atlantic (NAT) Data Link Monitoring Agency

(DLMA) received several PRs caused by ATS providers incorrectly considering a DM40 ASSIGNED ROUTE [route clearance] downlink containing a legitimate "-" (hyphen) character in the approach procedure name parameter (e.g., "ILS-Y") to be an error.

2.11 The CRA also informed the meeting that multiple recent PRs in various areas were caused by problems with aftermarket retrofit avionics that aircraft operators installed without aircraft manufacturer involvement. In these cases, the responsibility to investigate and resolve the problems should be primarily on the aircraft operator and its avionics supplier, although the aircraft manufacturer would provide support as appropriate. In response to a query, the meeting was informed that IPACG and ISPACG had yet to discuss the matter at their meetings. The meeting agreed to discuss it further at future meetings.

2.12 The CRA received the following less-significant new PRs that were relevant to FIT-Asia

- 3505-MM, Closed / TBA
- 3506-MM, Closed / TBA
- 3507-MM, Closed / TBA
- 3508-MM, Closed / TBA

2.13 The meeting was informed that since the beginning of 2023, the CRA had had no contract in place for its services in the Bay of Bengal and Arabian Sea areas. Accordingly, the CRA closed six new PRs in those areas without investigating them. Given that the PRs all involved Boeing aircraft, however, the CRA recommended to the PR originator to report the problems directly to Boeing for investigation. A side meeting was held to discuss the matter with the concerned State, the CRA, IATA and ICAO.

2.14 In response to a query, Indonesia informed the meeting that reactivation of the datalink ground station NTX (Natunas) was still in progress and would report the improvement to the FIT-Asia if there were any updates. Action Item 11/2 of the FIT-Asia Task List referred.

2.15 To address another query, the meeting was advised to continue to submit the Problem Reports (PR) for Remote Ground Stations (RGS) until there was a harmonised consensus with other regions to stop monitoring them. This would provide the FIT-Asia with a more comprehensive insight into all issues.

Agenda Item 3: PBCS Developments and Implementation

Regional PBCS Implementation Update (WP/3)

3.1 The Secretariat provided an update on the status of PBCS implementation among Asia/Pacific Administrations, as reported using the APAC regional *Survey of the Status of Current and Planned Implementation of Performance-Based Horizontal Separation Minima* form. The meeting was reminded of relevant Conclusions of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) and the Regional Airspace Safety Monitoring Advisory Group (RASMAG):

Conclusion APANPIRG/27-7: PBCS Operator Requirements

Conclusion RASMAG/22-3: Performance-Based Separation Implementation Survey

Conclusion APANPIRG/28-11: PBCS Operational Authorizations

Conclusion RASMAG/23-1: PBCS Compliance

Conclusion RASMAG/27-2: Updated Reporting of PBCS Implementation Status and Performance Monitoring Data

3.2 The survey form had been uploaded to the ICAO APAC Regional Office eDocuments web-page (https://www.icao.int/APAC/Pages/eDocs.aspx), for initial reporting by August 2017 and subsequent reporting by no later than 28 February each year.

3.3 The meeting was informed that a total of 19 APAC Administrations had responded to the survey prior to FIT-Asia/12. The following 15 APAC Administrations submitted completed report forms for the 2023 update and report to FIT-Asia/13:

China, Fiji, French Polynesia, Indonesia, Japan, Malaysia, Mongolia, Nepal, New Zealand, Papua New Guinea, Philippines, Singapore, Sri Lanka and Thailand

3.4 **FIT-Asia/13 WP/3 Attachment B** summarized the current implementation of performance-based separations as reported in survey responses since 2017.

3.5 The meeting was reminded that States of registry of aircraft operators that were approved or would seek approval to file RCP/RSP indicators in flight plans were requested to review their reported progress in Group D and Group E tasks.

3.6 The meeting was also invited to note that ICAO Asia/Pacific Regional Office would continue to monitor regional implementation, and raise APANPIRG Air Navigation Deficiencies or take other action as necessary in cases where States do not comply with relevant ICAO provisions.

Competent Airspace Safety Monitoring Organizations List (WP/4)

3.7 The RASMAG *List of Competent Airspace Safety Monitoring Organizations* (Last updated 25 July 2022) was reviewed and updated by the meeting. The list as reviewed is provided at **Appendix C to the report**.

3.8 The meeting was informed that ICAO had learned that not all FIT-Asia member administrations had formal service agreements with APANPIRG-recognized CRAs. ICAO and the CRAs would further investigate the matter for follow-up discussion at the upcoming RASMAG/28 meeting in August 2023. FIT-Asia member administrations were urged to establish a service agreement with the CRAs.

PBCS Global Charter (WP/5)

3.9 The meeting was informed that during the PBCS implementation discussion within the ICAO Operational Datalink Working Group (OPDLWG) PBCS planning team, CSPs had stated that they would be unable to enter into binding contracts/agreements because it was impossible for them to guarantee a certain performance to individual ANSPs and Aircraft Operators, there being many contributors affecting performance outside of the CSP domain.

3.10 Therefore, the OPDLWG developed the PBCS Global charter to address ground, CSP, and aircraft segment performance using a collaborative performance management approach to achieve the objectives of PBCS.

3.11 The meeting was reminded that according to the Charter Document (version Jun 8, 2018), the PBCS Charter facilitated co-operation among all PBCS stakeholders to achieve the objectives of PBCS. Each Charter stakeholder agreed to take the actions therein for which the required communication performance (RCP) and required surveillance performance (RSP) specifications had

been prescribed. The entities eligible to become a PBCS Charter stakeholder included:

- ANSPs using PBCS to support ATM operations in their airspace
- Aircraft operators participating in PBCS operations
- Communication service providers (CSPs)
- Satellite service providers (SSPs)
- Aircraft manufacturers
- Aircraft equipment suppliers

3.12 As of May 2023, five Aircraft Manufacture and Aircraft Equipment Suppliers, 10 CSPs and SSPs, 14 ANSPs (CAAs), and 2,404 Aircraft Operators had signed up for the Charter. Only three ANSPs of the FIT-Asia member States/Administrations had signed up.

- ATMB of CAAC
- CAA Philippines
- AirNav Indonesia

Note: The PBCS Implementation Strategy for the APAC Regions, and the PBCS Action List for ANSPs, urged all ANSPs using PBCS to support ATM operations to sign up to the PBCS Global Charter. The Strategy and the Action List were available on the ICAO APAC Regional Office eDocuments web page:

https://www.icao.int/APAC/Pages/eDocs.aspx.

3.13 **Figure 2** provided a snapshot of the signatories of the PBCS Global Charter.

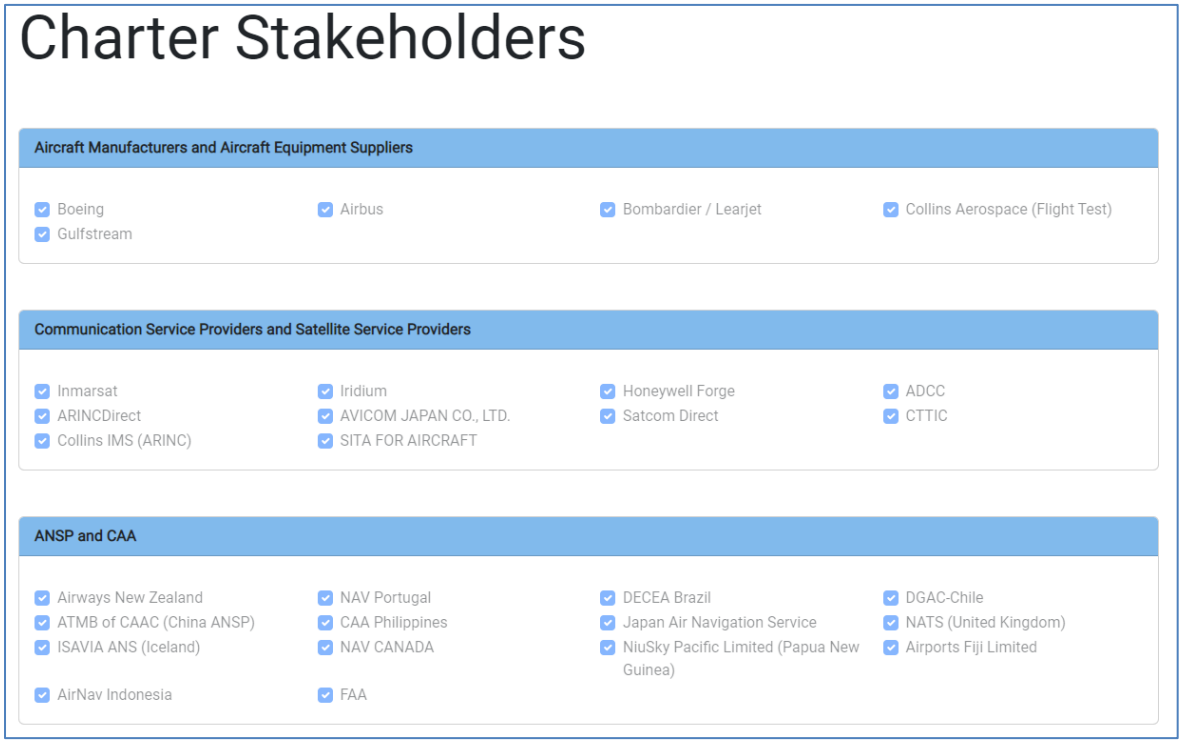

Figure 2: Charter signatories (as of May 2023)

3.14 The meeting was also reminded that the PBCS Charter was not intended to be a long-term

solution. It was provided as a PBCS performance specification option in place of or in addition to contractual agreements with CSPs. Therefore, ANSPs and Aircraft Operators were urged to sign up for the Charter as the most effective means and approach to monitor CSP compliance, which was an essential PBCS component.

Review of Annual PBCS Survey of the Implementation of Performance-based Horizontal Separation Minima (WP/6)

3.15 The *Survey of the Status of Current and Planned Implementation of Performance-based Horizontal Separation Minima* form had been amended to reflect the current separation minima in the *Procedures for Air Navigation Services – Air Traffic Management* (PANS ATM – Doc 4444) at the FIT-Asia/12 in 2022.

3.16 The meeting was informed that some items in section 4 of the survey form might require clarification because the current and planned status were mixed in the survey. In addition, there were some editorial errors in the form.

3.17 In view of the above, the meeting was requested to review the survey form.

3.18 As Airways New Zealand had the plan to implement performance-based 20 NM longitudinal separation minima (RSP/180 and RCP240) in the future, the meeting agreed to add 20 NM longitudinal separation with RCP240 and RSP180 into the survey.

3.19 The meeting agreed the following Draft Conclusion, for presentation to RASMAG/28.

Draft Conclusion FIT-Asia/13-1: Revised Survey of the Status of Current and Planned Implementation of Performance-Based Separation Minima

That, the revised *Survey of the Status of Current and Planned Implementation of Performance-Based Separation Minima* at **Appendix D to the Report** be uploaded to the Asia/Pacific Regional Office to replace the existing form.

Agenda Item 4: Review of ADS-C/CPDLC Operations and Performance

Datalink FANS 1A disruptions and impact on airlines due to Inmarsat satellite service outage (IP/3)

4.1 IATA presented an overview of the disruptions experienced by Airlines in North and South Asia and the Pacific region during the period of 16th to 19th April 2023, due to the interruption of Inmarsat Satellite services.

4.2 The meeting was informed that Inmarsat 4F1 satellite suffered a partial loss of power on Sunday, 16 April 2023 at 2114Z, believed to be due to a fault in one of its solar arrays. The reduction in power started automatic procedures that resulted in a full-service outage at approximately 2257Z in the 4F1 coverage area (shown in **Figure 3**).

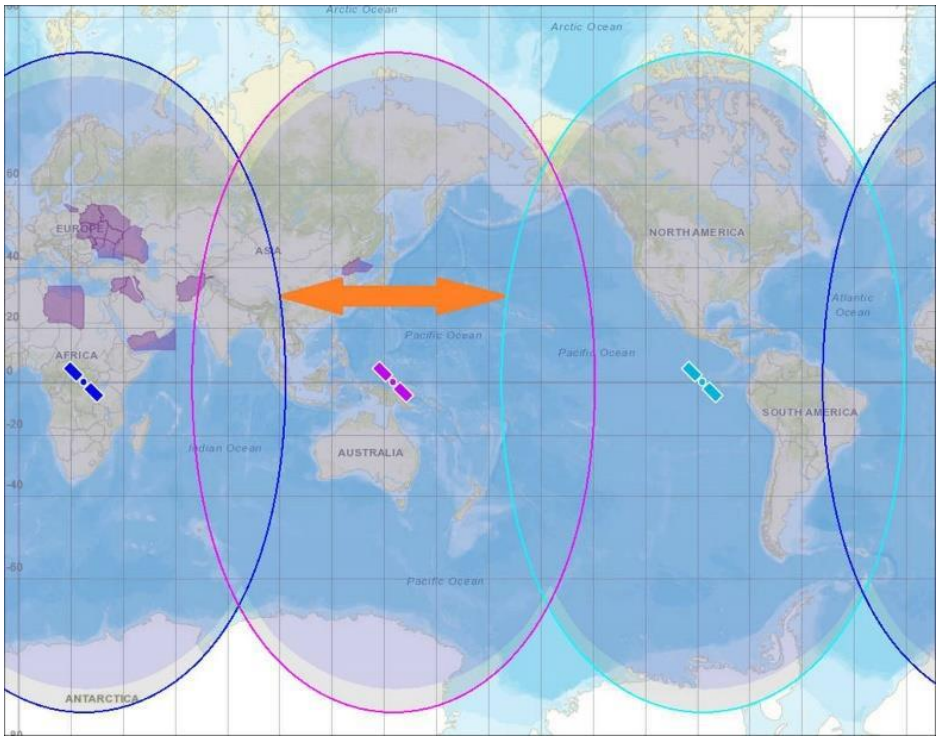

Figure 3: Inmarsat 4F1 coverage area

4.3 The meeting was informed that services affected (I-4 F1 Classic Aero, SwiftBroadband, and SwiftBroadband-Safety) produced an outage of FANS 1/A datalink services.

4.4 The information consolidated the inputs received from IATA Airline members in the Asia region, aiming to provide visibility of the impact of said disruption. IATA and its Airline members appreciated the efforts of Inmarsat, Collins Aerospace and SITA during said outage to recover the service, but they would like to request preventive measures, mitigation plans and faster recovery actions from Satellite Communication Providers in future events.

4.5 The meeting was also informed that IATA and its Airline members were willing to be active stakeholders supporting Inmarsat and Data link Service Providers (DSPs), including information sharing such as a timeframe forecast of when the outage was estimated to be solved, what were the possible test cases, next steps, possible corrected measures, and a point of contact to discuss.

Inmarsat Update on Satellite Service Outage (Flimsy/1)

4.6 Viasat[1] and Inmarsat provided a Flimsy in response to IP/3 by IATA, and provided additional information on Inmarsat satellite services and actions to address the I-4 F1 satellite service outage of 16th to 19th April 2023.

4.7 The meeting was informed that deployment of L-band services onto I-6 F1, originally planned for Q3 2023, was changed for mid-June, more than 2 months earlier. Once services would be fully migrated to I-6 F1 from I-4 F2, I-4 F2 would be relocated to the APAC region, restoring full

[1] The new company that has acquired Inmarsat.

capability and resilience in that region. (shown in **Figure 4**)

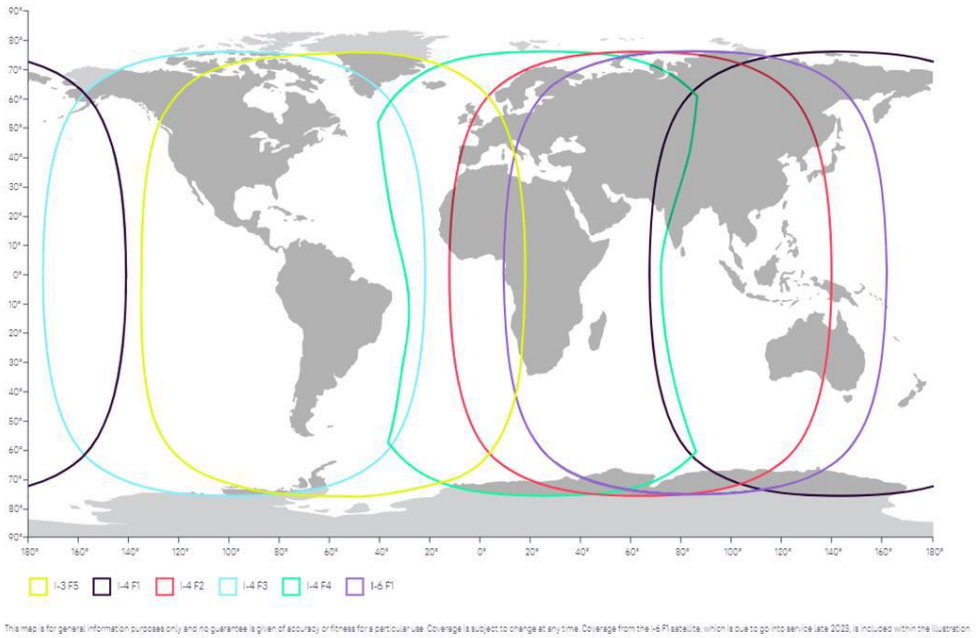

Figure 4: Inmarsat coverage

4.8 In addition, the meeting was informed that Viasat + Inmarsat had announced that aerospace provider, SWISSto12, would develop and manufacture three next-generation geostationary I-8 satellites, which were planned for launch by 2026. The three I-8 satellites would provide an extra layer of resilience to complement the existing constellation and Inmarsat's two I-6 generation satellites, and power critical L-band safety services into the 2040s and beyond.

4.9 The meeting was advised that the *PBCS Manual Appendix D, Post-implementation monitoring and corrective action (CPDLC and ADS-C) 3.1.4 Filtering CPDLC and ADS-C data during service outage periods* should be referenced for the Datalink Performance Report for 2023.

PBCS Monitoring and FPL Check in Fukuoka FIR (IP/4)

4.10 Japan presented information on aircraft non-compliance with RCP240 and RSP180, which were observed in the Fukuoka Flight Information Region (FIR), and the result of flight plan checks for the PBCS-approved aircraft on Pacific Ocean flights in Fukuoka FIR.

4.11 The meeting was informed that approximately 30 to 50 flights per day in the airspace filed P2 and RSP180 on their flight plans, but the aircraft's PBCS approval information was not on the Regional Monitoring Agency (RMA) database. The meeting was also informed that further collective actions against non-compliance aircraft might be discussed at the upcoming RASMAG.

4.12 In response to a query, the meeting was informed that CRA Japan had been established within ANSP (JANS).

4.13 The meeting was also informed of the project called "North Pacific (NOPAC) Redesign", under which the USA Federal Aviation Administration (FAA) and the Japan Civil Aviation Bureau (JCAB) planned to implement 23NM lateral separation minima and new ATS routes requiring RNP4 and PBCS.

4.14 Japan informed the meeting that separate safety risk assessments were conducted by Japan

and FAA since the implementation date of 23NM lateral separation minima.

Data Link Performance Report for China (WP/7)

4.15 Data link performance data for the Lanzhou (ZLLL) and Urumqi (ZWWW) FIRs for the period from January to December 2022 was presented by China. CPDLC and ADS-C system performance was measured against the RCP240 and RSP180 specifications.

4.16 While the overall 95% requirements for RSP180 and RCP240 requirements were met (**Tables 1, 2 and 3**), the 99.9% requirements were not, especially for RCP240 within the Lanzhou FIR.

FIR	**ZLLL**					
Criteria	**RSP180**					
Period	**Jan-June 2022**			**July-December 2022**		
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**
By Media Type						
SATCOM	88700	98.29	99.58	102139	98.07	99.60
VHF	99927	99.51	99.80	135871	99.55	99.82
HF	16	31.25	62.50	24	33.33	66.66
ALL	188643	98.90	99.60	238034	98.90	99.70

Table 1: ADS-C performance per media type (ZLLL)

FIR	**ZLLL**					
Criteria	**RCP240**					
Period	**Jan - Jun 2022**					
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	**Message Counts**	**95% benchmark**		**99.9% Benchmark**		**95.00%**
		ACP **% < = 180sec**	**ACTP** **% <= 120sec**	**ACP** **% < = 210sec**	**ACTP** **% <= 150sec**	**PORT** **% <= 60sec**
By Media Type						
SAT	770	97.79	99.61	97.92	99.61	97.66
VHF	68	98.52	100	98.52	100	98.52
SV	25	96.00	100	96.00	100	96.00
VS	3	100	66.66	100	66.66	100
HS	1	100	100	100	100	100
ALL	867	97.80	99.53	97.92	99.53	97.69

Table 2: CPDLC performance per Media Type January - June 2022 (ZLLL)

FIR	**ZLLL**
Criteria	**RCP240**
Period	**Jul - Dec 2022**

Colour Key: Meets Criteria / 99.0%-99.84% / Under Criteria	Message Counts	95% benchmark		99.9% Benchmark		95.00%
		ACP	ACTP	ACP	ACTP	PORT
		% < = 180sec	% <= 120sec	% < = 210sec	% <= 150sec	% <= 60sec
By Media Type						
SATCOM	602	98.33	98.50	98.50	98.83	98.00
VHF	125	100	99.20	100	100	99.20
SV	12	100	100	100	100	100
VS	8	100	100	100	100	100
HS	4	75.00	50.00	75.00	50.00	100
ALL	751	98.53	98.40	98.66	98.80	98.26

Table 3: CPDLC performance per Media Type July - December 2022 (ZLLL)

4.17 Overall 95% requirements for RSP180 and RCP240 requirements were met (**Tables 4, 5 and 6**) within the Urumqi FIR.

FIR	**ZWWW**					
Criteria	**RSP180**					
Period	**Jan-June 2022**			**July-December 2022**		
Colour Key: Meets Criteria / 99.0%-99.84% / Under Criteria	**Message Counts**	**95%**	**99.90%**	**Message Counts**	**95%**	**99.90%**
		% < = 90sec	**% <= 180sec**		**% < = 90sec**	**% <= 180sec**
By Media Type						
SATCOM	49085	98.04	99.54	41390	97.85	99.55
VHF	54406	99.47	99.77	60446	99.57	99.84
HF	9	33.33	77.77	12	25.00	58.33
ALL	103500	98.70	99.60	101848	98.80	99.70

Table 4: ADS-C performance per media type (ZWWW)

FIR	**ZWWW**					
Criteria	**RCP240**					
Period	**Jan - Jun 2022**					
Colour Key: Meets Criteria / 99.0%-99.84% / Under Criteria	**Message Counts**	**95% benchmark**		**99.9% Benchmark**		**95.00%**
		ACP	**ACTP**	**ACP**	**ACTP**	**PORT**
		% < = 180sec	**% <= 120sec**	**% < = 210sec**	**% <= 150sec**	**% <= 60sec**
By Media Type						
SAT	31	100	100	100	100	100
ALL	31	100	100	100	100	100

Table 5: CPDLC performance per Media Type January - June 2022 (ZWWW)

FIR	**ZWWW**			
Criteria	**RCP240**			
Period	**Jul - Dec 2022**			
		95% benchmark	**99.9% Benchmark**	**95.00%**

	Message Counts	ACP % < = 180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec	PORT % <= 60sec
By Media Type						
SAT	4	100	100	100	100	100
ALL	4	100	100	100	100	100

Table 6: CPDLC performance per Media Type July - December 2021 (ZWWW)

4.18 The meeting was informed that in Lanzhou part of the route L888, the CPDLC and ADS-C were primary means of communication and surveillance, but as alternatives in the Urumqi FIR. In Y1 and Y2, the two applications were used as alternative, while VHF voice and ADS-B are primary.

4.19 The meeting was also informed that cooperation among relevant stakeholders was essential for the information sharing to analyse PBCS data.

Data Link Performance Report of India (WP/8)

4.20 India presented data link performance observed in the Chennai (VOMF) and Kolkata (VECF) FIRs during the period 1st January to 31st December 2022, measured against the CPDLC RCP240 and ADS-C RSP180 specifications.

4.21 The meeting was informed that in both Chennai and Kolkata FIRs, SATCOM and VHF performance met the 95% criteria and marginally satisfied the 99.9% criteria. The HF data link performance did not meet the 95% and 99.9% criteria. However, the overall ADS Performance in Chennai and Kolkata met the 95% criteria and marginally satisfied the 99.9% criteria.

4.22 **Table 7 and 8** summarized overall ADS-C performance per media type for Chennai FIR and Kolkata FIR.

FIR	VOMF						
Criteria	RSP180						
Period	JANUARY 2022 - JUNE 2022			JULY 2022 - DECEMBER 2022			
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	**Message Counts**	**95%** % < = 90sec	**99.90%** % <= 180sec	**Message Counts**		**95%** % < = 90sec	**99.90%** % <= 180sec
By Media Type				**By Media Type**			
SATCOM	64350	98.00%	99.15%	SATCOM	95639	97.80%	99.07%
VHF	118163	98.73%	99.45%	VHF	145595	98.72%	99.42%
HF	86	30.23%	59.42%	HF	388	25.26%	40.98%
ALL	182599	98.44%	99.32%	ALL	241622	98.24%	99.19%

Table 7: ADS-C performance per media type (VOMF)

FIR	VOCF						
Criteria	RSP180						
Period	JANUARY 2022 - JUNE 2022			JULY 2022 - DECEMBER 2022			
Colour Key: Meets Criteria / 99.0%-99.84% / Under Criteria	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**	**Message Counts**		**95%** **% < = 90sec**	**99.90%** **% <= 180sec**
By Media Type				**By Media Type**			
SATCOM	101401	98.33%	99.50%	SATCOM	104340	98.21%	99.33%
VHF	247608	99.24%	99.68%	VHF	259913	99.24%	99.65%
HF	170	47.06%	68.29%	HF	230	51.09%	67.50%
ALL	349179	98.95%	99.61%	ALL	364483	98.92%	99.54%

Table 8: ADS-C performance per media type (VECF)

4.23 The meeting was informed that the overall CPDLC performance per Media Type within Chennai FIR and Kolkata FIR during 2022 met the RCP240 performance criteria. However, it was between 99.0% - 99.84% in a few cases.

4.24 **Table 9, 10, 11 and 12** summarized overall CPDLC performance per media type for Chennai FIR and Kolkata FIR.

FIR		VOMF				
Criteria		RCP240				
Period		JANUARY 2022 - JUNE 2022				
Colour Key: Meets Criteria / 99.0%-99.84% / Under Criteria		**Message Counts**	95% benchmark		99.9% Benchmark	
			ACP % < = 180sec	**ACTP % <= 120sec**	**ACP % < = 210sec**	**ACTP % <= 150sec**
By Media Type						
SAT	**SAT**	18664	99.75%	99.79%	99.87%	99.85%
VHF	**VHF**	47573	99.86%	99.91%	99.91%	99.96%
HF	**HF**	63	94.05%	93.22%	96.98%	97.96%
All	**All**	66300	99.82%	99.87%	99.89%	99.92%

Table 9: CPDLC performance per media type (VOMF) from January – June 2022

FIR	VOMF				
Criteria	RCP240				
Period	JULY 2022 - DECEMBER 2022				
Colour Key: Meets Criteria / 99.0%-99.84% / Under Criteria	**Message Counts**	95% benchmark		99.9% Benchmark	
		ACP % < = 180sec	**ACTP % <= 120sec**	**ACP % < = 210sec**	**ACTP % <= 150sec**

By Media Type						
SAT	**SAT**	31211	99.83%	99.80%	99.91%	99.85%
VHF	**VHF**	64672	99.82%	99.93%	99.87%	99.95%
HF	**HF**	6	86.94%	80.86%	89.64%	85.28%
All	**All**	95889	99.82%	99.88%	99.88%	99.92%

Table 10: CPDLC performance per media type (VOMF) from July – December 2022

FIR		VECF				
Criteria		RCP240				
Period		JANUARY 2022 - JUNE 2022				
Colour Key Meets Criteria 99.0%-99.84% Under Criteria		**Message Counts**	95% benchmark		99.9% Benchmark	
			ACP % < = 180sec	**ACTP % <= 120sec**	**ACP % < = 210sec**	**ACTP % <= 150sec**
By Media Type						
SAT	**SAT**	7996	98.67%	99.06%	98.92%	99.39%
VHF	**VHF**	12327	99.49%	99.71%	99.62%	99.81%
All	**All**	20325	99.15%	99.44%	99.35%	99.64%

Table 11: CPDLC performance per media type (VECF) from January – June 2022

FIR		VECF				
Criteria		RCP240				
Period		JULY 2022 - DECEMBER 2022				
Colour Key Meets Criteria 99.0%-99.84% Under Criteria		**Message Counts**	95% benchmark		99.9% Benchmark	
			ACP % < = 180sec	**ACTP % <= 120sec**	**ACP % < = 210sec**	**ACTP % <= 150sec**
By Media Type						
SAT	**SAT**	11914	98.58%	98.98%	99.04%	99.28%
VHF	**VHF**	15709	99.49%	99.74%	99.63%	99.83%
HF	**HF**	6	44.17%	38.16%	49.03%	52.04%
All	**All**	27629	99.08%	99.40%	99.36%	99.58%

Table 12: CPDLC performance per media type (VECF) from July – December 2022

4.25 India informed the meeting that the issues related to ADS & CPDLC performance not meeting the criteria in some of the cases would be taken up with SITA to identify and rectify the causes.

4.26 In response to a query on planning for data link performance monitoring in the Mumbai FIR, India informed the meeting that the system installation was still ongoing. As such India was unable to provide PBCS data monitoring and analysis for Mumbai at the present moment.

Data Link Performance Report for Indonesia (WP/9)

4.27 Indonesia presented the data link performance data for 1 January to 31 December 2022 for the Ujung Pandang FIR, and information on actions taken to identify and rectify the causes of performance issues.

4.28 Overall ADS-C performance by SATCOM and VHF met the 95 % criterion but failed for the 99.9% criterion for both the January – June period and the July – December period, and ADS-C performance by HF did not meet the 95% and 99% criterion. (shown in **Table 13**)

Criteria		RSP180					
Period		Jan-June 2022			July-Des 2022		
Colour Key: Meets Criteria; 99.0%-99.84%; Under Criteria		Message Counts	95% % <=90sec	99,90% % <=180sec	Message Counts	95% % <=90sec	99,90% % <=180sec
FIR	By Media Type						
WAAF	SATCOM	14423	98,95%	99,88%	14991	98,93%	99,84%
	HF	103	66,26%	89,24%	55	85,70%	89,68%
	VHF	76314	99,56%	99,79%	106316	99,46%	99,74%
	ALL	90840	99,42%	99,80%	121362	99,39%	99,75%

Table 13: ADS-C performance for the Ujung Pandang FIR per Media Type

4.29 The meeting was informed that the performances recorded remained the same based on the monitoring activity. The CSP was expected to identify the causes of poor performance of RGS/GES (AMQ1, BDJ1, BIK1, BME1, DRB1, IG1, SBW, and UPG1).

4.30 There were five aircraft operators/types that did not meet the 99.9% criteria. The meeting was informed that the ANSP would continue monitoring to determine the problem of the low-performance fleet for corrective action.

4.31 **Table 14** and **15** summarized overall CPDLC performance per Media Type within the Ujung Pandang FIR during 2022.

FIR	UJUNG PANDANG FIR					
Criteria	RCP240					
Period	Jan - Jun 2022					
Colour Key: Meets Criteria; 99.0%-99.84%; Under Criteria	Message Counts	95% benchmark		99.9% Benchmark		95%
		ACP % < = 180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec	PORT
By Media Type						
SATCOM	3.470	99,45%	99,98%	99,56%	100,00%	96,92%
SV	357	97,92%	100,00%	98,09%	100,00%	95,26%
VHF	13.561	99,28%	99,79%	99,43%	99,82%	97,45%
ALL	17388	99,29%	99,83%	99,42%	99,86%	97,30%

Table 14: CPDLC performance for the Ujung Pandang FIR per Media Type (January – June 2022)

FIR	UJUNG PANDANG FIR					
Criteria	RCP240					
Period	Jul - Dec 2022					
Colour Key: Meets Criteria / 99.0%-99.84% / Under Criteria	Message Counts	95% benchmark		99.9% Benchmark		95%
		ACP % < =180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec	PORT
By Media Type						
SATCOM	3490	99,37%	100,00%	99,61%	100,00%	97,48%
SV	291	99,36%	100%	99,66%	100%	97,17%
VHF	16634	99,46%	99,85%	99,60%	99,88%	97,42%
ALL	20415	99,43%	99,77%	99,60%	99,85%	97,42%

Table 15: CPDLC performance for the Ujung Pandang FIR per Media Type (July - December 2022)

4.32 Indonesia informed the meeting that the Actual Communications Performance (ACP) for messages sent via Satellite and VHF met the 95% criteria but marginally fell below the 99.9% criteria.

4.33 Indonesia had identified the differentiation based on the observation during the period of 2022. The result showed the ACP which did not meet the criteria was caused by the low percentages of pilot operational response time (PORT).

4.34 Indonesia's response to the annual regional *Survey of the Status of Current and Planned Implementation of Performance-Based Horizontal Separation Minima* was provided in **FIT-Asia/12 WP/9 Attachment A**.

Data Link Performance Report for Malaysia (WP/10)

4.35 The data link performance report for the Kuala Lumpur FIR for January to December 2022 was presented to the meeting by Malaysia.

4.36 Malaysia informed the meeting that the summary of the RSP180 performance from both halves of 2022 differentiated by media type remained consistent despite seeing message counts double in the latter half. VHF media type achieved all the performance criteria except for 99.9% for Jan-June, which only fell marginally below the requirement. SATCOM media type met the criteria for the 95% and fell short of the 99.9% for both halves of 2022. (**Table 16**)

FIR	**Kuala Lumpur FIR**					
Criteria	**RSP180**					
Period	**Jan-June 2022**			**July-December 2022**		
Colour Key: Meets Criteria / 99.0%-99.84% / Under Criteria	**Message Counts**	**95%**	**99.90%**	**Message Counts**	**95%**	**99.90%**
		% < = 90sec	**% <= 180sec**		**% < = 90sec**	**% <= 180sec**
By Media Type						
SATCOM	101,638	98.52%	99.64%	238,178	98.95%	99.73%
VHF	68,106	99.45%	99.82%	152,712	99.67%	99.91%
HF	14	89.18%	100.00%	30	57.33%	85.13%
ALL	169,757	98.89%	99.72%	390,920	99.23%	99.80%

Table 16: Kuala Lumpur FIR ADS-C Downlink Latency per Media Type

4.37 The meeting was also informed that limited VHF Coverage over the Bay of Bengal within Kuala Lumpur FIR could affect the transition duration from VHF to SATCOM. The assessment for ADS-C performance on HF was not statistically significant due to the low number of data points.

4.38 Malaysia informed the meeting that the CPDLC performance overall did not meet the 99.9% criterion but met the 95% criterion. All benchmarks for the HF media type indicated that the performance was under all criteria. (**Table 17 and 18**)

FIR	**Kuala Lumpur FIR**					
Criteria	**RCP240**					
Period	**Jan - Jun 2022**					
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	**Message Counts**	95% benchmark		99.9% Benchmark		95%
		ACP	**ACTP**	**ACP**	**ACTP**	**PORT**
		% < = 180sec	**% <= 120sec**	**% < = 210sec**	**% <= 150sec**	**%<60secs**
By Media Type						
SATCOM	24,041	98.38%	98.75%	98.96%	99.29%	95.54%
VHF	28,128	99.24%	99.43%	99.42%	99.58%	97.23%
HF	288	92.81%	89.02%	93.20%	93.82%	84.95%
ALL	52,457	98.81%	99.06%	99.17%	99.41%	96.39%

Table 17: Kuala Lumpur FIR CPDLC Performance Latency per Media Type – January-June 2022

FIR	**KUALA LUMPUR FIR**					
Criteria	**RCP240**					
Period	**Jul - Dec 2022**					
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	**Message Counts**	95% benchmark		99.9% Benchmark		95%
		ACP	**ACTP**	**ACP**	**ACTP**	**PORT**
		% < =180sec	**% <= 120sec**	**% < = 210sec**	**% <= 150sec**	**%<60secs**
By Media Type						
SATCOM	33,996	99.02%	99.18%	99.39%	99.50%	96.74%
VHF	40,119	99.35%	99.65%	99.51%	99.73%	97.49%
HF	380	92.54%	89.74%	94.13%	93.00%	84.47%
ALL	74,495	99.17%	99.38%	99.43%	99.59%	97.08%

Table 18: Kuala Lumpur FIR CPDLC Performance Latency per Media Type – July-December 2022

4.39 Malaysia informed the meeting that based on the analysis, the delayed CPDLC transactions were mainly caused by high pilot operational response times (PORTs). Nonetheless, during the period spanning from 2022 to Q1 of 2023 Malaysia did encounter interruptions in data link connectivity, attributable to issues with the ATM system, which could have adversely impacted communication latency performance.

4.40 The meeting was informed that Malaysia would communicate with airline operators, particularly the significant users of Kuala Lumpur FIR, to encourage improvements and reduce pilot operational response time (PORT) to enhance performance.

4.41 The meeting was also informed that Malaysia actively monitored the ATM system's performance to ensure compliance with all criteria. This effort should identify the root cause of the data link connectivity interruptions and determine an appropriate solution for resolving the issue.

Data Link Performance Report for Philippines (WP/11)

4.42 The former chair of FIT-Asia presented the data link performance report for the Manila FIR for the year 2022 on behalf of the Philippines as they were not present at the meeting.

4.43 The meeting was informed that the Philippines had been using ADS-C/CPDLC for a long-time, and it had become the primary means of communication in the Category R[2] airspace over the South China Sea and Central West Pacific airspace in Manila FIR. Performance-based lateral and longitudinal separation had yet to be implemented by the Philippines.

4.44 **Table 19** summarized the ADS-C performance by media type for 2022. The overall performance met the 95% criteria, but HF media did not.

FIR	RPHI					
Criteria	RSP 180					
Period	January-June 2022			July-December 2022		
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	Message counts	95% %<=90sec	99 .90% %<=180sec	Message counts	95% %<=90sec	99 .90% %<=180sec
By Media Type						
SATCOM	49885	98.46%	99.88%	134113	97.85%	99.78%
VHF	228283	99.41%	99.75%	210727	99.06%	99.56%
HF	164	71.95%	84.87%	115	67.97%	81.09%
ALL	27832	99.25%	99.76%	344955	98.89%	99.58%

Table 19: Manila FIR ADS-C performance by Media Type - January-December 2022

4.45 **Table 20 and 21** summarized the CPDLC performance by MEDIA type from January to December 2022. HF consistently failed in all criteria while SATCOM and VHF marginally failed to meet the 99.9% criteria for the period Jan-June 2021.

FIR	RPHI
Criteria	RCP240

[2] The *Asia/Pacific Seamless ANS Plan* defines Category R airspace as *remote en-route airspace with Air Traffic Services (ATS) HF or CPDLC communications and outside the coverage of ground-based surveillance coverage.*

Period	January-June 2022					
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	Message counts	95% Benchmark		99.90% Benchmark		95%
		ACP %<=180sec	ACTP %<=120sec	ACP %<=210sec	ACTP %<=150sec	PORT %<60sec
By Media Type						
SATCOM	4539	98.64%	99.99%	98.78%	100.00%	94.30%
VHF	4446	98.81%	99.38%	98.94%	99.44%	96.66%
SV	510	99.53%	100.00%	99.57%	100.00%	98.86%
HV	287	85.06%	81.98%	87.46%	87.11%	77.70%
ALL	9782	98.40%	98.98%	98.59%	99.19%	95.83%

Table 20: Manila FIR CPDLC performance by Media Type – January-June 2022

FIR	RPHI					
Criteria	RCP240					
Period	July-December 2022					
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	Message counts	95% Benchmark		99.90% Benchmark		95%
		ACP %<=180sec	ACTP %<=120sec	ACP %<=210sec	ACTP %<=150sec	PORT %<60sec
By Media Type						
SATCOM	9298	99.12%	99.98%	99.20%	99.99%	95.41%
VHF	6310	98.47%	98.93%	98.64%	99.05%	95.75%
SV	808	97.39%	100.00%	97.58%	100.00%	95.67%
HV	649	87.98%	85.05%	90.14%	89.68%	78.27%
ALL	17065	98.12%	98.63%	98.36%	98.89%	95.02%

Table 21: Manila FIR CPDLC performance by Media Type – July-December 2022

4.46 The meeting was informed that system maintenance occasionally monitored the switching of Air-Ground Data link Processor (AGP) servers responsible for Datalink Communication for no precise reason. The Philippines also informed the meeting that planned upgrade to a later Topsky ATM system version could improve performance, particularly ADSC/CPDLC communication latency issues.

Data Link Performance Report for Sri Lanka (WP/12)

4.47 The data link performance of ADS-C/CPDLC data in Colombo FIR (VCCF) for January to December 2022 was provided to the meeting.

4.48 The overall ADS-C performance using downlinks sent within the VCCF FIR during 2022 met the RSP 180, 95% criterion but marginally fell below the 99.9% criterion in the year's first half. (**Table 22**)

FIR	VCCF	
Criteria	RSP180	
Period	Jan-June 2022	July-December 2022

Colour Key Meets Criteria 99.0%-99.84% Under Criteria	Message Counts	95% % < = 90sec	99.90% % <= 180sec	Message Counts	95% % < = 90sec	99.90% % <= 180sec
By Media Type						
SATCOM + VHF	385121	99.31%	99.83%	463887	99.55%	99.91%
VHF	This Data is Not Available separately.					
HF	N/A	N/A	N/A	N/A	N/A	N/A
ALL	385121	99.31%	99.83%	463887	99.55%	99.91%

Table 22: VCCF FIR ADS-C Downlink Latency per Media Type

4.49 **Table 23 and 24** summarized overall CPDLC performance per Media Type, messages sent within the VCCF FIR during 2022.

FIR	**VCCF**					
Criteria	**RCP240**					
Period	**Jan-Jun 2022**					
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	**Message Counts**	95% benchmark		99.9% Benchmark		95%
		ACP	**ACTP**	**ACP**	**ACTP**	**PORT**
		% < = 180sec	**% <= 120sec**	**% < = 210sec**	**% <= 150sec**	**%<60secs**
By Media Type						
SATCOM + VHF	20125	98.22%	99.91%	99.71%	100%	95.57%
VHF	This data is not available separately.					
HF	N/A	N/A	N/A	N/A	N/A	N/A
ALL	20125	98.22%	99.91%	99.71%	100%	95.57%

Table 23: VCCF FIR CPDLC Performance Latency per Media Type – January-June 2022

FIR	**VCCF**					
Criteria	**RCP240**					
Period	**Jul-Dec 2022**					
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	**Message Counts**	95% benchmark		99.9% Benchmark		95%
		ACP	**ACTP**	**ACP**	**ACTP**	**PORT**
		% < =180sec	**% <= 120sec**	**% < = 210sec**	**% <= 150sec**	**%<60secs**
By Media Type						
SATCOM	25443	98.57%	99.94%	99.49%	99.96%	95.31%
VHF	This data is not available separately.					
HF						
ALL	25443	98.57%	99.94%	99.49%	99.96%	95.31%

Table 24: VCCF FIR CPDLC Performance Latency per Media Type – July-December 2022

4.50 Sri Lanka informed the meeting that a few airline operators still needed to meet the required performance for the PORT 95% criterion. The ANSP had taken measures to notify the airline operators through the CAASL (Civil Aviation Authority of Sri Lanka) to take corrective actions as appropriate.

4.51 In response to a query, Sri Lanka informed the meeting that HF Datalink was unavailable in Colombo FIR.

4.52 The meeting was informed that separate monitoring and analysis by media type (SATCOM and VHF) and individual RGS and GES data had become available from January 2023. (**Table 25**)

FIR		VCCF		
Criteria		RSP180		
Period		Jan-March 2023		
Colour Key Meets Criteria 99.0%-99.84% Under Criteria		**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**
By Media Type				
SATCOM		152951	98.61%	99.57%
VHF		40680	99.93%	99.97%
HF		N/A	N/A	N/A
ALL		193631	99.27%	99.77%
By Remote Ground Station (RGS) Ground Earth Station (GES)				
Designator	**Type**	(only RGS/GES with message counts >100 recorded)		
CMB-F1	VHF	38578	99.87%	99.92%
MAA-F1	VHF	256	100.00%	100.00%
MLE-F1	VHF	2102	99.91%	100.00%
APK1	SAT	124012	99.30%	99.72%
APK2	SAT	25331	99.18%	99.57%
EUA1	SAT	3108	97.35%	99.41%

Table 25: VCCF FIR ADS-C Downlink Latency per Media Type, RGS and GES for the period January to March 2023

Data Link Performance Report for Singapore FIR (WP/13)

4.53 The data link performance data for 2022 for the Singapore FIR (WSJC), and the information on actions taken to identify and rectify the causes of performance issues were presented to the meeting.

4.54 ADS-C performance by SATCOM and VHF met the 95% criteria but SATCOM failed for the 99.9% criteria as shown in **Table 26**. The assessment for ADS-C performance by HF was not statistically significant due to the low number of data points. In addition, Singapore had reminded the airline operators to use SATCOM and VHF in WSJC FIR.

FIR	WSJC					
Criteria	RSP180					
Period	Jan-Jun 2022			Jul-Dec 2022		
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	Message Counts	95% % < = 90sec	99.90% % <= 180sec	Message Counts	95% % < = 90sec	99.90% % <= 180sec
By Media Type						
SATCOM	15487	95.54%	99.23%	19642	94.95%	99.03%
VHF	393225	99.33%	99.89%	588907	99.26%	99.87%
HF	76	74.21%	92.17%	106	72.26%	92.17%
ALL	408788	99.18%	99.87%	608655	99.12%	99.84%

Table 26: WSJC FIR ADS-C Downlink Latency per Media Type

4.55 CPDLC performance by SATCOM and VHF met the 95% criterion but failed marginally for 99.9% criterion as shown in **Table 27 and 28**.

FIR	WSJC					
Criteria	RCP240					
Period	Jan-Jun 2022					
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	Message Counts	95% Benchmark ACP % < = 180sec	 ACTP % <= 120sec	99.9% Benchmark ACP % < = 210sec	 ACTP % <= 150sec	
By Media Type						
SATCOM	1305	98.02%	98.33%	98.87%	99.07%	
VHF	27514	99.05%	99.13%	99.26%	99.36%	
HF	0					
ALL	28819	99.00%	99.10%	99.24%	99.34%	

Table 27: WSJC FIR CPDLC Performance Latency per Media Type – January-June 2022

FIR	WSJC					
Criteria	RCP240					
Period	Jul-Dec 2022					
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	Message Counts	95% Benchmark ACP % < =180sec	 ACTP % <= 120sec	99.9% Benchmark ACP % < = 210sec	 ACTP % <= 150sec	
By Media Type						
SATCOM	2181	98.40%	98.30%	99.15%	99.11%	
VHF	47272	99.10%	99.22%	99.33%	99.40%	

FIR	WSJC					
Criteria	RCP240					
Period	Jul-Dec 2022					
Colour Key Meets Criteria 99.0%-99.84% Under Criteria	Message Counts	95% Benchmark		99.9% Benchmark		
		ACP	ACTP	ACP	ACTP	
		% < =180sec	% <= 120sec	% < = 210sec	% <= 150sec	
HF	0					
ALL	49453	99.07%	99.18%	99.32%	99.39%	

Table 28: WSJC FIR CPDLC Performance Latency per Media Type – July-December 2022

4.56 The meeting was informed that Singapore had filed a problem report with CRA and would continue to monitor the performance of a poorly-performing fleets. Singapore would follow up with the aircraft operator through respective EMAs and file problem reports with the CRA.

4.57 The meeting noted that the report by Singapore included data analysis and corrective action taken, and recognized it as an excellent example of the Datalink Performance Report.

Asia/Pacific Region Combined PBCS Monitoring Report (WP/14)

4.58 Japan presented the aggregated data link performance monitoring report for the Asia/Pacific Region, prepared by Japan. **Table 29** listed the FIRs for which data link performance reports were provided and included in the regional report.

Reporting FIRs		
State	**FIR**	**Location Indicator**
United States	Anchorage Oceanic	PAZA
Japan	Fukuoka	RJJJ
United States	Oakland Oceanic	KZAK
Fiji	Nadi	NFFF
French Polynesia	Tahiti	NTTT
New Zealand	Auckland Oceanic	NZZO
Australia	Brisbane	YBBB
	Melbourne	YMMM
Philippines	Manila	RPHI
Sri Lanka	Colombo	VCCF
India	Chennai	VOMF
	Kolkata	VECF
Viet Nam	Ho-Chi-Minth	VVTS
Indonesia	Ujung Pandang	WAAF
Singapore	Singapore	WSJC
China	Lanzhou	ZLLL
	Urumqi	ZWWW
Malaysia	Kuala Lumpur	WMFC

Table 29: 2022 Data Performance – Reporting FIRs

4.59 The meeting was reminded that the performance criteria and the colour codes used by FIT-Asia (shown in **Table 30 and 31**) were slightly different from other FITs.

CRITERIA		
	95%	99.90%
ASP	% < = 90sec	% <= 180sec
ACP	% <= 180sec	% <= 210sec
ACTP	% <= 120sec	% <= 150sec
PORT	% < 60sec	

Table 30: Performance criteria

Actual data	FIT-Asia	IPACG	CRA (PAC)
98.94%	98.94%	98.94%	98.9%
98.95%	98.95%	98.95%	99.0%
99.00%	99.00%	99.00%	99.0%
99.84%	99.84%	99.84%	99.8%
99.85%	99.85%	99.85%	99.9%
99.90%	99.90%	99.90%	99.9%

Table 31: Colour codes

4.60 The report highlighted consolidated performance data and issues associated with Actual Surveillance Performance (ASP) and Actual Communications Performance (ACP) for the region.

4.61 Overall ASP for the region met the 95% criterion (**Table 32**). Brisbane FIR (YBBB) was the only FIR that cleared all criteria in 2022.

ACTUAL SURVEILLANCE PERFORMANCE - FIR AGGREGATE (ALL MEDIA TYPES)						
Region	Asia-Pacific Region					
Performance Criteria	RSP180					
Time Period	2022 January-June			2022 July-December		
Colour Key: Meets Criteria; 99.0%-99.84%; Under Criteria	Message Counts	Criteria		Message Counts	Criteria	
		95%	99.90%		95%	99.90%
FIR		% < = 90sec	% <= 180sec		% < = 90sec	% <= 180sec
PAZA	1342364	98.94%	99.70%	1477614	98.94%	99.68%
RJJJ	1843788	98.49%	99.66%	2417297	98.69%	99.69%
KZAK	4301850	98.81%	99.66%	4831234	98.90%	99.72%
NFFF	186590	99.31%	99.69%	175745	99.13%	99.63%
NTTT	49699	99.76%	99.90%	72521	99.64%	99.84%
NZZO	196553	99.15%	99.83%	344849	98.91%	99.69%
YBBB	517841	99.93%	99.97%	952694	99.60%	99.88%
YMMM	306436	99.84%	99.93%	745742	99.47%	99.76%
RPHI	27832	99.25%	99.76%	344955	98.89%	99.58%
VCCF	385121	99.31%	99.83%	463887	99.55%	99.91%
VOMF	182599	98.44%	99.32%	241622	98.24%	99.19%
VECF	349179	98.95%	99.61%	364483	98.92%	99.54%
VVTS	154613	98.81%	99.83%	194999	99.06%	99.83%
WAAF	90840	99.42%	99.80%	121362	99.39%	99.75%
WSJC	408788	99.18%	99.87%	608655	99.12%	99.84%
ZLLL	188643	98.90%	99.60%	238034	98.90%	99.70%
ZWWW	103500	98.70%	99.60%	101848	98.80%	99.70%
WMFC	169757	98.89%	99.72%	390920	99.23%	99.80%

Table 32: RSP aggregated data (All media types)

4.62 The meeting was informed that RSP message counts in most FIRs increased from the first half of 2022 to the second half of 2022 (**Figure 5**). Especially, RJJJ, KZAK, YBBB, YMMM, RPHI, WSJC, and WMFC recorded significant increases.

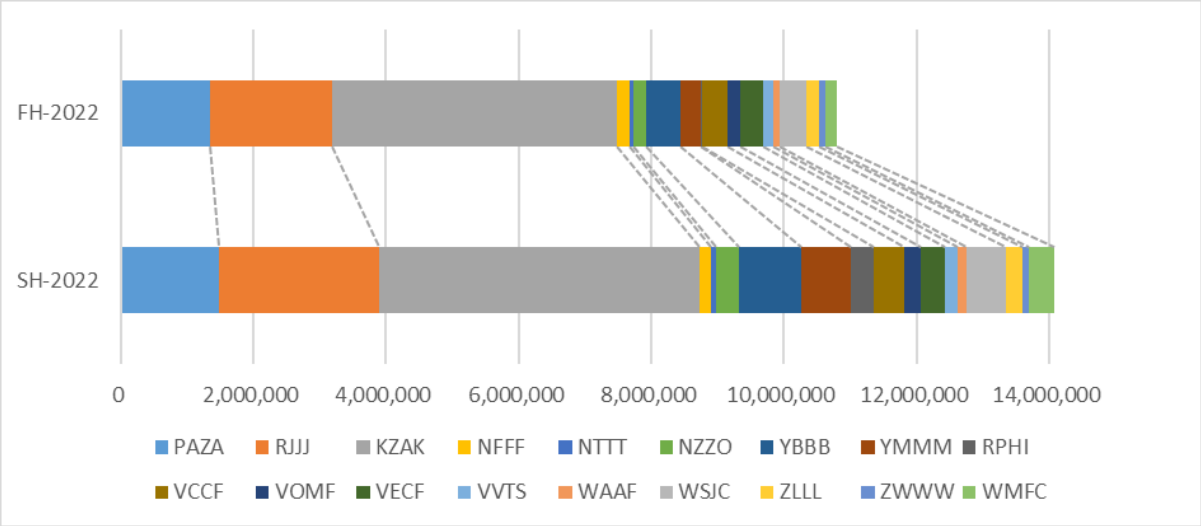

Figure 5: RSP message counts of each FIR in 2022

4.63 The number of RSP message counts in the second half of 2020 were the lowest in the 2019-2022 timeframe, but were then followed by a recovery trend. (**Figure 6**)

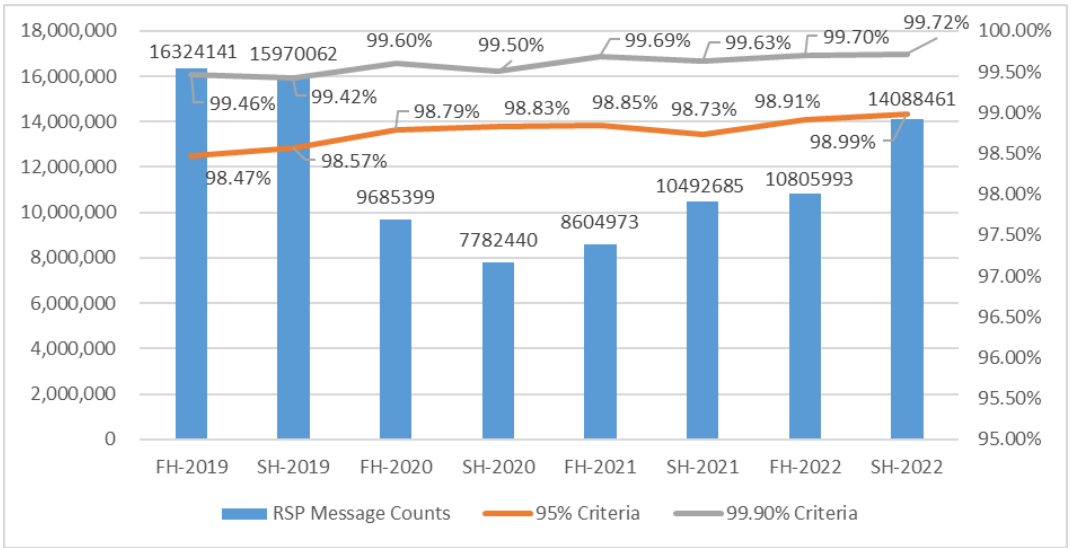

Figure 6: Number of RSP message counts and percentage of meeting 95% and 99.90% criteria in 2022

4.64 Overall ACP for the region met the 95% criterion (**Table 33**).

ACTUAL COMMUNICATION PERFORMANCE - FIR AGGREGATE (ALL MEDIA TYPES)										
Region	Asia-Pacific Region									
Performance Criteria	RCP240									
Time Period	2022 January-June					2022 July-December				
	Message Counts	ACP Criteria		ACTP Criteria		Message Counts	ACP Criteria		ACTP Criteria	
		95%	99.90%	95%	99.90%		95%	99.90%	95%	99.90%
FIR		% < = 180sec	% <= 210sec	% < = 120sec	% <= 150sec		% < = 180sec	% <= 210sec	% < = 120sec	% <= 150sec
PAZA	81331	98.89%	98.89%	98.77%	99.18%	95762	99.31%	99.54%	99.36%	99.57%
RJJJ	112574	99.63%	99.75%	99.79%	99.85%	151986	99.57%	99.71%	99.72%	99.82%
KZAK	246180	99.22%	99.49%	99.35%	99.60%	311405	99.38%	99.60%	99.59%	99.73%
NFFF	6607	99.51%	99.72%	99.65%	99.72%	6685	99.26%	99.41%	99.55%	99.62%
NTTT	4492	99.81%	99.83%	99.95%	99.97%	7138	99.57%	99.64%	99.94%	99.94%
NZZO	36564	99.21%	99.47%	99.58%	99.74%	65032	99.16%	99.43%	99.58%	99.72%
YBBB	11278	99.81%	99.88%	99.82%	99.85%	24371	99.57%	99.73%		
YMMM	12812	99.34%	99.51%	99.52%	99.69%	32204	99.61%	99.71%		
RPHI	9782	98.40%	98.59%	98.98%	99.19%	17065	98.12%	98.36%	98.63%	98.89%
VCCF	20125	98.22%	99.71%	99.91%	100.00%	25443	98.57%	99.49%	99.94%	99.96%
VOMF	66300	99.82%	99.89%	99.87%	99.92%	95889	99.82%	99.88%	99.88%	99.92%
VECF	20325	99.15%	99.35%	99.44%	99.64%	27629	99.08%	99.36%	99.40%	99.58%
VVTS	84045	95.94%	96.46%	99.62%	99.79%	60881	95.20%	95.76%	99.57%	99.73%
WAAF	17664	99.01%	99.22%	99.67%	99.75%	20604	99.27%	99.48%	99.77%	99.86%
WSJC	28819	99.00%	99.24%	99.10%	99.34%	49453	99.07%	99.32%	99.18%	99.39%
ZLLL	867	97.80%	97.92%	99.53%	99.53%	751	98.53%	98.66%	98.40%	98.80%
ZWWW	31	100.00%	100.00%	100.00%	100.00%	4	100.00%	100.00%	100.00%	100.00%
WMFC	52457	98.81%	99.17%	99.06%	99.41%	74495	99.17%	99.43%	99.38%	99.59%

Table 33: RCP aggregated data (All media types) in 2022

4.65 The meeting was provided with the list of FIRs that had RSP issues related to the IG1 and IGW1 station (**Table 34 and 35**). Anchorage (PAZA) and Nadi (NFFF) FIRs were removed from the previous year's report list, and VECF was added to the list in 2022. Consequently, 12 FIRs were listed for the IG1 station's RSP issues and 10 FIRs for the IGW1.

Performance Criteria			RSP180					
Period			2022 January-June			2022 July-December		
Colour Key: Meets Criteria / 99.0%-99.84% / Under Criteria			Message Counts	Criteria		Message Counts	Criteria	
				95%	99.90%		95%	99.90%
				% < = 90sec	% <= 180sec		% < = 90sec	% <= 180sec
By Media Path Identifier/ Remote Ground Station (RGS) /Ground Earth Station (GES) (only message counts >100 recorded)								
FIR	Designator	Media Type						
NTTT	IG1	SAT	307	98.37%	99.34%	499	95.39%	96.59%
NZZO	IG1	SAT	601	96.17%	98.83%	1859	97.36%	98.76%
YBBB	IG1	SAT	3650	95.95%	98.88%	5826	95.14%	98.61%
YMMM	IG1	SAT	1366	95.24%	97.95%	3817	95.39%	98.61%
RPHI	IG1	SAT	471	91.30%	96.87%	10148	92.93%	98.39%
VOMF	IG1	SAT	650	59.38%	76.15%	1075	58.79%	75.35%
VECF	IG1	SAT	1135	92.42%	97.85%	1755	91.51%	97.21%
VVTS	IG1	SAT	1187	94.19%	99.26%	1958	94.64%	99.56%
WAAF	IG1	VHF	1447	96.27%	99.43%	3263	94.67%	98.38%
WSJC	IG1	SAT	1217	90.88%	98.12%	1604	91.83%	98.53%
ZLLL	IG1	SAT	2565	94.69%	98.55%	3409	93.37%	98.76%
ZWWW	IG1	SAT	1560	94.61%	98.97%	1564	94.05%	98.59%

Table 34: List of FIRs on IG1 station's RSP issues in 2022

Performance Criteria			RSP180					
Period			2022 January-June			2022 July-December		
Colour Key Meets Criteria 99.0%-99.84% Under Criteria			Message Counts	Criteria		Message Counts	Criteria	
				95%	99.90%		95%	99.90%
				% < = 90sec	% <= 180sec		% < = 90sec	% <= 180sec
By Media Path Identifier/ Remote Ground Station (RGS) /Ground Earth Station (GES) (only message counts >100 recorded)								
FIR	Designator	Media Type						
NFFF	IGW1	SAT	16709	97.39%	98.36%	18118	96.95%	98.43%
NTTT	IGW1	SAT	654	99.08%	99.69%	645	96.74%	97.82%
YMMM	IGW1	SAT	3922	96.99%	98.47%	8878	98.01%	99.44%
VOMF	IGW1	SAT	3595	94.91%	98.54%	7591	94.10%	97.58%
VECF	IGW1	SAT	6415	95.46%	98.43%	4195	88.72%	94.34%
VVTS	IGW1	VHF	1548	92.83%	97.91%	3564	94.58%	98.61%
WSJC	IGW1	SAT	5652	92.41%	98.60%	11683	93.53%	98.66%
ZLLL	IGW1	SAT	4956	96.36%	98.44%	7296	96.08%	98.56%
ZWWW	IGW1	SAT	3330	95.55%	98.22%	3270	95.19%	98.19%
WMFC	IGW1	SAT	2873	92.06%	97.98%	7559	92.00%	97.39%

Table 35: List of FIRs on IGW1 station's RSP issues in 2022

4.66 It was again noted that HF data link performance results did not meet performance requirements in the majority FIRs. (**Table 36**)

Performance Criteria		RSP180					
Period		2022 January-June			2022 July-December		
		Message Counts	Criteria		Message Counts	Criteria	
			95%	99.90%		95%	99.90%
			% < = 90sec	% <= 180sec		% < = 90sec	% <= 180sec
FIR	Media Type	By Media Type					
PAZA	HF	2405	57.17%	73.35%	3552	60.87%	73.87%
KZAK	HF	9289	58.35%	73.54%	5463	58.28%	72.41%
NFFF	HF	73	61.64%	76.71%	114	49.12%	71.05%
NZZO	HF				147	65.30%	77.55%
YBBB	HF	353	66.01%	84.70%	419	74.22%	85.92%
YMMM	HF	233	57.08%	73.81%	255	48.63%	69.02%
RPHI	HF	164	71.95%	84.87%	115	67.97%	81.09%
VOMF	HF	86	30.23%	59.42%	388	25.26%	40.98%
VECF	HF	170	47.06%	68.29%	230	51.09%	67.50%
WAAF	HF	103	66.26%	89.24%	55	85.70%	89.68%
WSJC	HF	76	74.21%	92.17%	106	72.26%	92.17%
ZLLL	HF	16	31.25%	62.50%	24	33.33%	66.66%
ZWWW	HF	9	33.33%	77.77%	12	25.00%	58.33%
WMFC	HF	14	89.18%	100.00%	30	57.33%	85.13%

Table 36: HF Datalink performance in 2022

4.67 The meeting was provided with the combinations of aircraft operators and aircraft types (**Table 37**) that did not achieve PORT compliance. Only message counts over one thousand in the first or second half of 2022 were recorded.

Performance Criteria		RCP240											
Period		2022 January-June						2022 July-December					
Colour Key Meets Criteria 99.0%-99.84% Under Criteria		Message Counts	ACP Criteria		ACTP Criteria		PORT	Message Counts	ACP Criteria		ACTP Criteria		PORT
			95%	99.90%	95%	99.90%	95%		95%	99.90%	95%	99.90%	95%
			% < = 180sec	% <= 210sec	% < = 120sec	% <= 150sec	% <= 60sec		% < = 180sec	% <= 210sec	% < = 120sec	% <= 150sec	% <= 60sec
FIR	Aircraft Operator / Type	By Aircraft Operator / Type (only message counts >1000 recorded)											
PAZA	AAR/B744	1354	98.30%	98.60%	98.15%	98.67%	94.83%	1420	99.37%	99.58%	99.15%	99.58%	98.03%
PAZA	CES/B77W	1067	96.53%	97.19%	95.69%	96.16%	94.38%	943	99.26%	99.36%	99.05%	99.47%	99.36%
PAZA	CKS/B744	3088	95.60%	96.99%	96.73%	97.89%	90.80%	2927	97.64%	98.46%	98.16%	98.63%	95.46%
PAZA	CPA/B748	1120	95.45%	96.79%	94.82%	97.14%	94.82%	3013	96.42%	98.21%	95.32%	96.98%	96.91%
PAZA	FDX/B77L	2418	98.22%	98.76%	97.48%	98.39%	94.67%	3265	98.90%	99.17%	98.99%	99.26%	96.75%
PAZA	FDX/MD11	1963	98.62%	99.13%	99.03%	99.85%	92.61%	2349	99.02%	99.32%	99.66%	99.74%	94.81%
PAZA	UAL/B77W	1113	98.38%	99.10%	97.93%	98.56%	94.34%	791	99.49%	99.87%	99.75%	99.87%	96.21%
RJJJ	FDX/MD11	1796	98.05%	98.39%	99.72%	99.83%	92.98%	2216	97.65%	98.24%	99.50%	99.73%	93.41%
KZAK	ASA/B39M	2964	93.79%	94.91%	94.84%	95.85%	92.58%	3018	97.42%	98.24%	97.65%	98.08%	96.26%
KZAK	MIL/K35R	1003	98.21%	98.60%	99.90%	99.90%	91.03%	1726	98.03%	98.38%	99.77%	99.83%	91.89%
KZAK	CKS/B744	1149	95.04%	96.17%	97.13%	98.26%	89.90%	1182	97.80%	98.65%	98.48%	98.65%	96.02%
KZAK	UAL/B738	2216	96.84%	97.56%	97.92%	98.96%	90.93%	5029	97.65%	98.69%	98.75%	99.42%	94.69%
KZAK	MIL/C17							4214	98.39%	98.77%	99.91%	99.93%	94.14%
KZAK	FDX/MD11	1835	98.53%	99.07%	99.29%	99.73%	94.82%	1919	98.54%	98.85%	99.22%	99.58%	96.20%
KZAK	WJA/B38M	780	96.28%	97.18%	95.90%	96.54%	92.05%	1301	98.46%	99.31%	98.62%	98.77%	95.62%
KZAK	DAL/A333	2204	99.18%	99.41%	99.18%	99.91%	93.19%	691	99.13%	99.57%	99.57%	99.86%	94.93%
RPHI	CSN/B789	458	97.17%	97.32%	97.19%	97.71%	96.18%	1080	97.31%	97.69%	96.91%	97.68%	94.44%
RPHI	SIA/A359	863	97.60%	98.03%	97.14%	97.68%	96.52%	1777	96.74%	96.98%	97.07%	97.74%	94.65%
VCCF	ETD/B77W	915	96.83%	99.45%	98.99%	99.95%	95.14%	1015	98.69%	99.37%	100.00%	100.00%	92.14%
VCCF	GIA/B77W	954	97.11%	99.45%	100.00%	100.00%	93.88%	1353	98.66%	99.17%	100.00%	100.00%	92.98%
VCCF	QTR/B77W	1548	98.11%	99.67%	99.48%	99.90%	93.27%	1944	95.41%	98.67%	99.16%	99.81%	93.46%
VCCF	SVA/B77W	1174	95.46%	99.66%	100.00%	100.00%	94.66%	1487	98.45%	99.64%	100.00%	100.00%	93.22%
WMFC	MAS/B738	710	97.04%	97.99%	98.59%	99.60%	89.86%	1980	95.96%	97.64%	98.18%	99.17%	88.69%
WMFC	QTR/B77W	1366	97.58%	98.24%	98.72%	99.63%	94.14%	1911	98.78%	99.17%	99.22%	99.69%	96.18%
WMFC	SIA/A359	7769	93.54%	95.03%	93.62%	95.91%	88.76%	9428	94.31%	95.82%	95.07%	96.85%	89.82%
WMFC	SIA/A388	1495	94.43%	96.03%	95.14%	96.82%	88.76%	2554	94.52%	95.97%	95.42%	97.34%	89.98%
WMFC	SIA/B38M	1198	97.63%	98.70%	99.60%	99.85%	92.82%	1700	97.12%	97.86%	98.85%	99.03%	92.65%
WMFC	SIA/B78X	1569	97.10%	97.71%	96.54%	97.59%	93.75%	2087	97.08%	97.99%	97.17%	98.30%	94.54%
WMFC	THY/B77W	2909	97.04%	97.90%	97.15%	98.59%	93.37%	3701	98.77%	99.43%	99.19%	99.41%	95.46%

Table 37: Combinations of aircraft operators and types confirmed non-compliance of PORT

4.68 The meeting was reminded that only DM0 WILCO should be used for PORT data analysis, based on the PBCS Manual. The meeting was also informed that the next version of the PBCS Manual might include DM3 ROGER to increase the monitoring data set.

4.69 States/Administrations were invited to double-check the data before submission each year to avoid format errors and consistency issues.

4.70 The meeting acknowledged Japan for its contribution to the forum.

China Aero Safety Program Progress Report (Flimsy/2)

4.71 China presented the result of tests on the upgraded communication capability supported by Aviation Data Communication Corporation, China Transport Telecommunications & Information Center, and Inmarsat, where analysis was conducted to prove compliance of performance against the RCP/240 and RSP/180 specifications.

4.72 China informed the meeting that more tests would be undertaken for operational verification after the completion of the trial and would adequately keep track of its progress in the future.

Agenda Item 5: Data Link Developments and Guidance Material

PBCS analysis and corrective action in NZZO (SP/1)

5.1 Airways New Zealand provided a presentation on PBCS analysis and corrective action in NZZO.

5.2 The meeting was informed that the ICAO PBCS provision was a globally harmonized framework that prescribed an RCP specification to communication services (CPDLC) and a RSP specification to surveillance services (ADS-C) in specified airspace. An essential aspect of this PBCS framework involved post-implementation monitoring to ensure continued safe operations. This included end-to-end monitoring of the performance of CPDLC and ADS-C, monitoring of system availability, and a robust problem reporting, investigation, and resolution mechanism to support continuous system improvement and hazard mitigation.

5.3 Airways New Zealand provided the meeting with a set of procedures used for PBCS monitoring and analysis in NZZO, using a monthly monitoring cycle:

- Automated data extraction from the ATM in GOLD format .csv files;
- Manual excel spreadsheet filtering of extracted data for;
  - Notified outages;
  - Flight sectors where HFDL is used instead of SATCOM;
- A web based analysis tool to process filtered data and;
  - Automatically extract RCP240 and RSP180 performance for each aircraft;
  - Create google earth files to visualise the location of delayed ADS-C reports;
- Analyse poor performers identified by the web based tool;
  - Data inspection using excel;
  - Using Google Earth to visualise the location of delayed ADS-C reports;
- Publication of a performance report for New Zealand CAA and Airways management;
- Filing problem reports to the Central Reporting Agency (CRA) when required for further analysis of performance issues;
- Filing non-compliance reports to PARMO for those aircraft not meeting 95% normal operating requirements; and
- Working with airline customers to resolve identified performance issues.

5.4 The meeting was informed that a web based analysis tool for data analysis was available at https://pbcsanalysis.herokuapp.com.

5.5 Six case studies were introduced to the meeting with information on analysing PBCS data and taking necessary corrective actions, including specific fleets that recorded low performance against RSP180 compliance. In addition, creating ADS-C plots for Google Earth was introduced.

5.6 In response to a query, Airways New Zealand informed the meeting that there was a dedicated person employed one day per week to deal with PBCS data collection and analysis for the

organization. Approximately 4 days per month were required for this work.

5.7 The meeting acknowledged New Zealand for its contribution to the forum.

PBCS analysis and corrective action in Japan (SP/2)

5.8 Japan provided a presentation on PBCS analysis and corrective action in Fukuoka FIR.

5.9 The meeting was informed of the PBCS framework in Japan, including the organizational chart of the CRA, RMA, EMA and other related stakeholders, and the flow of data collection/analysis and PRs.

5.10 The meeting was reminded of the ***Conclusion RASMAG/25-1: PBCS Non-Compliance Report Form Template***, which was intended for ANSPs to inform the relevant Monitoring Agency of aircraft/aircraft operators where data link performance did not comply with specifications.

5.11 A case study on poor datalink performance on cross-polar routes in the Reykjavik FIR was provided. Some airline flights between Asia and Europe were required to fly on cross-polar for operational or contingency reasons, in airspace outside Inmarsat coverage. For further investigation, CRA Japan and Isavia ANS were working closely through the relevant monitoring agencies to find if similar cases were observed or if any seasonal characteristics were involved.

5.12 The meeting acknowledged Japan for its contribution to the forum.

Agenda Item 6: Data Link-related ANS Deficiencies

Air Navigation Deficiencies Relating to Data Link Performance Monitoring and Analysis (WP/15)

6.1 The Secretariat presented an update on the status of Asia/Pacific engagement in data link problem reporting through the FANS-CRA website, and performance analysis reporting to a recognized FIT.

6.2 All Asia/Pacific States that provide data link services had registered on the FANS-CRA website. **Table 38** recorded the submission of PRs through the website in 2023 (calendar year).

State	# PR 2023 (to 28 May)	Performance Analysis Reports to FIT
Australia	1	YES
China	0	YES[3]
Fiji	0	YES
France (Polynésie Française)	0	YES

[3] Lanzhou and Urumqi FIRs

State	# PR 2023 (to 28 May)	Performance Analysis Reports to FIT
India	0	YES[4]
Indonesia	0	YES[5]
Japan	3	YES
Malaysia	1	YES[6]
Myanmar	0	YES
Maldives	0	NO
Papua New Guinea	4	NO
Philippines[7]	0	YES
New Zealand	4	YES
Singapore	16	YES
Sri Lanka	0	YES
USA	7	YES
Viet Nam	3*	YES

Table 38: Asia/Pacific CRA Registration and Activity (calendar year) and Performance Analysis Reporting status.

6.3 The Secretariat presented the relevant excerpt of the APANPIRG ATM and Airspace Safety Deficiencies List (**FIT-Asia/13 WP/15 Attachment A**) for review by the meeting.

6.4 The meeting agreed that the following deficiencies remained current:

India: Performance monitoring and analysis not reported for Mumbai FIRs.

Maldives: Problem reports not provided to CRA. Performance monitoring and analysis not reported to FIT.

6.5 The APANPIRG ATM and Airspace Deficiencies in the Data Link field, as agreed by the meeting, was provided at **Appendix E to the Report.**

Agenda Item 7: Any Other Business

Regional Supplementary Procedures Update (WP/16)

7.1 The meeting was informed of the status of Regional Supplementary Procedures (Doc

[4] Chennai and Kolkata FIRs.
[5] Ujung Pandang FIR.
[6] Kuala Lumpur FIR.

* Unable to investigate due to lack of necessary information.

7030) supporting performance-based separations Fin the APAC Region.

7.2 The meeting was informed that Proposal for Amendment (PfA) to ICAO Doc 7030 Regional Supplementary Procedures Serial No. APAC-S 22/06 MID/ASIA 6 had been forwarded to ICAO Headquarters to review prior to its circulation to all relevant States and International Organizations. The PfA was subsequently circulated, in order to reach regional air navigation agreement, under ICAO State Letter AP152/22 (ATM) dated 16 December 2022.

7.3 The meeting was informed that two correspondent States subsequently communicated a revised position to the ICAO Regional Office.

7.4 In consultation with ICAO Headquarters it had been determined that, rather than circulate a new, separate Doc 7030 PfA, the current PfA be updated to include these additional requirements and then recirculated. However, it should be noted that the process would again require pre-circulation to ICAO Headquarters before recirculating to States to reach regional air navigation agreement.

7.5 The meeting was also informed that a State letter in response to the ***Conclusion APANPIRG/33/5: Provide clear direction on Doc 7030 Regional SUPPs publication requirements***, providing information on separations in high seas airspace requiring SUPPS support, together with guidance for the performance-based separation trial operations would be promulgated after final consultation with ICAO HQ and EURNAT office. The ATM/SG/11 in October 2023 could discuss the matter further if needed.

ATM Points of Contact (WP/17)

7.6 The meeting was requested to include relevant FIT Points of Contact (POCs) under the SAF (Airspace Safety Monitoring and FIT) category, for coordination and/or clarification of air navigation and airspace safety issues.

Agenda Item 8: FIT-Asia Task List

FIT-Asia Terms of Reference and Task List (WP/18)

8.1 The FIT Asia Terms of Reference (TOR, **FIT-Asia/13 WP/18 Attachment A**) and Task List were provided for review and update by the meeting.

8.2 The FIT-Asia Task List as updated by the meeting was provided at **Appendix F to the Report**.

Agenda Item 9: Date and Venue of the Next Meeting

9.1 The next meeting of FIT-Asia was tentatively planned to be held in Bangkok, Thailand, in June or July 2024, a few weeks before the normal schedule for the RASMAG/29 meeting.

9.2 States/Administrations considering hosting future FIT-Asia meetings were invited to contact the Secretariat.

Closing of the Meeting

9.3 In closing the meeting, the Chair thanked the meeting participants for their support and contributions.

List of Participants

		STATE/NAME	TITLE/ORGANIZATION
1.	**CHINA (2)**		
	1.	Mr. Chen Yongyue	Manager of the China RMA Technology Team China RMA **CHINA**
	2.	Mr. Yang Hong	Engineer China RMA **CHINA**
2.	**INDIA (4)**		
	3.	Mr. A.P Udanarayanan	General Manager (ATM) WR Airports Authority of India **INDIA**
	4.	Mr. Harshad Vijay Khatavkar	Assistant General Manager (ATM-ASM) Airports Authority of India **INDIA**
	5.	Mr. J. Masivayana	Assistant General Manager (ATM-ASM) Airports Authority of India Chennai **INDIA**

	STATE/NAME		TITLE/ORGANIZATION
	6.	Mr. Fazal Rahim Khan	Senior Manager (ATM) Airports Authority of India Kolkata **INDIA**
3.	**INDONESIA (3)**		
	7.	Mrs. Silvy Retno Andriani	Technician AirNav Indonesia **INDONESIA**
	8.	Mr. Justinus Aries Pancoro	ATC System Junior Manager AirNav Indonesia **INDONESIA**
	9.	Mr. Gatut Nugraha Sumarnant Budhi	Planning and Evaluation of ACC East, Junior Manager AirNav Indonesia **INDONESIA**
4.	**JAPAN (1)**		
	10.	Mr. Yasuhiro Marutsuka	Special Assistant to the Director Japan Civil Aviation Bureau **JAPAN**
5.	**MALAYSIA (4)**		
	11.	Mr. Mior Adli Bin Mior Sallehhuddin	Acting Deputy Director CNS Civil Aviation Authority of Malaysia **MALAYSIA**

	STATE/NAME		TITLE/ORGANIZATION
	12.	Mr. Mohamad Yusri Mohamed Ali	Air Traffic Controller/CAAM Safety Inspector Civil Aviation Authority of Malaysia **MALAYSIA**
	13.	Mr. Muhd Muzaffar bin Mustaffa Johari	Senior Assistant Director Civil Aviation Authority of Malaysia **MALAYSIA**
	14.	Mr. Nik Izat Amir	Air Traffic Controller Civil Aviation Authority of Malaysia **MALAYSIA**
6.	**NEW ZEALAND (1)**		
	15.	Mr. Paul Radford (Online)	Oceanic Systems Development Specialist Airways New Zealand **NEW ZEALAND**
7.	**SINGAPORE (2)**		
	16.	Mr. Kwek Chin Lin	Chief ATC Specialist (Systems Development) Civil Aviation Authority of Singapore Singapore Changi Airport **SINGAPORE**
	17.	Mr. Ying Kit Aw	Air Traffic Management Systems Civil Aviation Authority of Singapore **SINGAPORE**

	STATE/NAME		TITLE/ORGANIZATION
8.	**SRI LANKA (3)**		
	18.	Mr. Indika Bandupriya	Senior Manager ATS Airport & Aviation Services (Sri Lanka) Ltd. **SRI LANKA**
	19.	Mr. Aruna Fernando	Senior Manager – Air Traffic Control (Planning & Standards) Airport & Aviation Services (Sri Lanka) Ltd. **SRI LANKA**
	20.	Mr. Prasanna Wijeratne	Electronics Engineer Airport & Aviation Services (Sri Lanka) Ltd. **SRI LANKA**
9.	**THAILAND (8)**		
	21.	Mr. Apiwat Torpradit	Flight Operations Inspector The Civil Aviation Authority of Thailand **THAILAND**
	22.	Mr. Chavalit Ithiapa	ANS Senior Officer The Civil Aviation Authority of Thailand **THAILAND**
	23.	Mr. Nattaporn Pornsawat	ANS Officer The Civil Aviation Authority of Thailand **THAILAND**

	STATE/NAME		TITLE/ORGANIZATION
	24.	Mr. Phichpawis Plengsiriwat	Air Navigation Operations Planning Division Officer The Civil Aviation Authority of Thailand **THAILAND**
	25.	Mr. Sikarate Tarasak	Air Navigation Operations Planning Division Officer The Civil Aviation Authority of Thailand **THAILAND**
	26.	Mr. Rattaphon Potipipith	Air Navigation Operations Planning Division Officer The Civil Aviation Authority of Thailand **THAILAND**
	27.	Mr. Parinya Ruangsiripaisan	Engineering Manager (Business) Aeronautical Radio of Thailand Ltd. **THAILAND**
	28.	Mr. Dolsarit Somseang	Senior Systems Engineer (Safety Management System) Aeronautical Radio of Thailand Ltd. **THAILAND**
10.	**UNITED STATES (1)**		
	29.	Mr. Shayne Campbell	Senior Air Traffic Representative, Asia Pacific Federal Aviation Administration **SINGAPORE**

	STATE/NAME		TITLE/ORGANIZATION
11.	**IATA (1)**		
	30.	Mr. Diego Albert	Regional Assistant Director Operations, Safety and Security IATA **SINGAPORE**
12.	**BOEING (2)**		
	31.	Mr. Michael Matyas	Boeing Commercial Airplanes – Avionics The Boeing Company **UNITED STATES**
	32.	Mr. Rami Ayari	Design Engineer Boeing Commercial Airplanes **UNITED STATES**
13.	**INMARSAT (2)**		
	33.	Ms. Lisa Bee	Director, Air Traffic Services Inmarsat Aviation **UNITED STATES**
	34.	Ms. Siu Min Lee	Business Development Director INMARSAT **SINGAPORE**

	STATE/NAME		TITLE/ORGANIZATION
14.	**ICAO (4)**		
	35.	Mr. Hiroyuki Takata	Regional Officer, Air Traffic Management ICAO Asia and Pacific Regional Office **THAILAND**
	36.	Mr. Shane Sumner	Regional Officer, Air Traffic Management ICAO Asia and Pacific Regional Office **THAILAND**
	37.	Mr. Weng Kit Ying	Air Traffic Management Officer ICAO Asia and Pacific Regional Office **THAILAND**
	38.	Dr. Prakayphet Chalayonnawin	Programme Analysis Associate, Air Traffic Management ICAO Asia and Pacific Regional Office **THAILAND**

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LIST OF WORKING AND INFORMATION PAPERS

WORKING PAPERS

NUMBER	AGENDA	TITLE	PRESENTED BY
WP/1	1	Provisional Agenda	Secretariat
WP/2	2	FIT Central Reporting Agency (CRA) Problem Report Briefing	Boeing (FIT-Asia CRA)
WP/3	3	Regional PBCS Implementation Update	Secretariat
WP/4	3	Competent Airspace Safety Monitoring Organizations List	Secretariat
WP/5	3	PBCS Global Charter	Secretariat
WP/6	3	Review of Annual PBCS Survey of the Implementation of Performance-based Horizontal Separation Minima	Secretariat
WP/7	4	Data Link Performance Report for China	China
WP/8	4	Data Link Performance Report for India	India
WP/9	4	Data Link Performance Report for Indonesia	Indonesia
WP/10	4	Data Link Performance Report for Malaysia	Malaysia
WP/11	4	Data Link Performance Report for Philippines	Philippines
WP/12	4	Data Link Performance Report for Sri Lanka	Sri Lanka
WP/13	4	Data Link Performance Report for Singapore	Singapore
WP/14	4	Asia/Pacific Region Combined PBCS Monitoring Report	Japan
WP/15	6	Air Navigation Deficiencies Relating to Data Link Performance Monitoring and Analysis	Secretariat
WP/16	7	Regional Supplementary Procedures Update	Secretariat
WP/17	7	ATM Points of Contact	Secretariat
WP/18	8	FIT-Asia Terms of Reference and Task List	Secretariat

INFORMATION PAPERS

NUMBER	AGENDA	TITLE	PRESENTED BY
IP/1	-	List of Papers	Secretariat
IP/2	4	ACARS RAT1 Function	Boeing (FIT-Asia CRA)
IP/3	4	Datalink FANS 1A Disruptions and impact on airlines due to Inmarsat satellite service outage	IATA
IP/4	4	PBCS Monitoring and FPL Check in Fukuoka FIR	Japan

PRESENTATIONS

NUMBER	AGENDA	TITLE	PRESENTED BY
SP/1	5	PBCS analysis and corrective action in NZZO	New Zealand
SP/2	5	PBCS analysis and corrective action in Japan	Japan

FLIMSIES

NUMBER	AGENDA	TITLE	PRESENTED BY
Flimsy/1	4	Inmarsat Update on Satellite Service Outage	Viasat and Inmarsat
Flimsy/2	4	China Aero Safety Program Progress Repot	China

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APANPIRG Asia/Pacific Airspace Safety Monitoring

RASMAG LIST OF COMPETENT AIRSPACE SAFETY MONITORING ORGANISATIONS

The Regional Airspace Safety Monitoring Advisory Group of APANPIRG (RASMAG) is required by its terms of reference to recommend and facilitate the implementation of airspace safety monitoring and performance assessment services and to review and recommend on the competency and compatibility of airspace monitoring organisations. In order to assist in addressing these requirements, RASMAG updates and distributes the following list of competent airspace safety monitoring organizations for use by States requiring airspace safety monitoring services. In the context of the list, abbreviations have meanings as follows:

- RMA – Regional Monitoring Agency – safety assessment and monitoring in the vertical plane (i.e. RVSM);
- EMA – En-route Monitoring Agency – safety assessment and monitoring in the horizontal plane (i.e. RSP, RCP, RNP for performance-based horizontal separations);
- CRA – Central Reporting Agency – technical performance of data link systems (i.e. ADS/CPDLC); and
- FIT – FANS 1/A Interoperability/Implementation Team – parent body to a CRA.

(Last updated 07 June 2023)

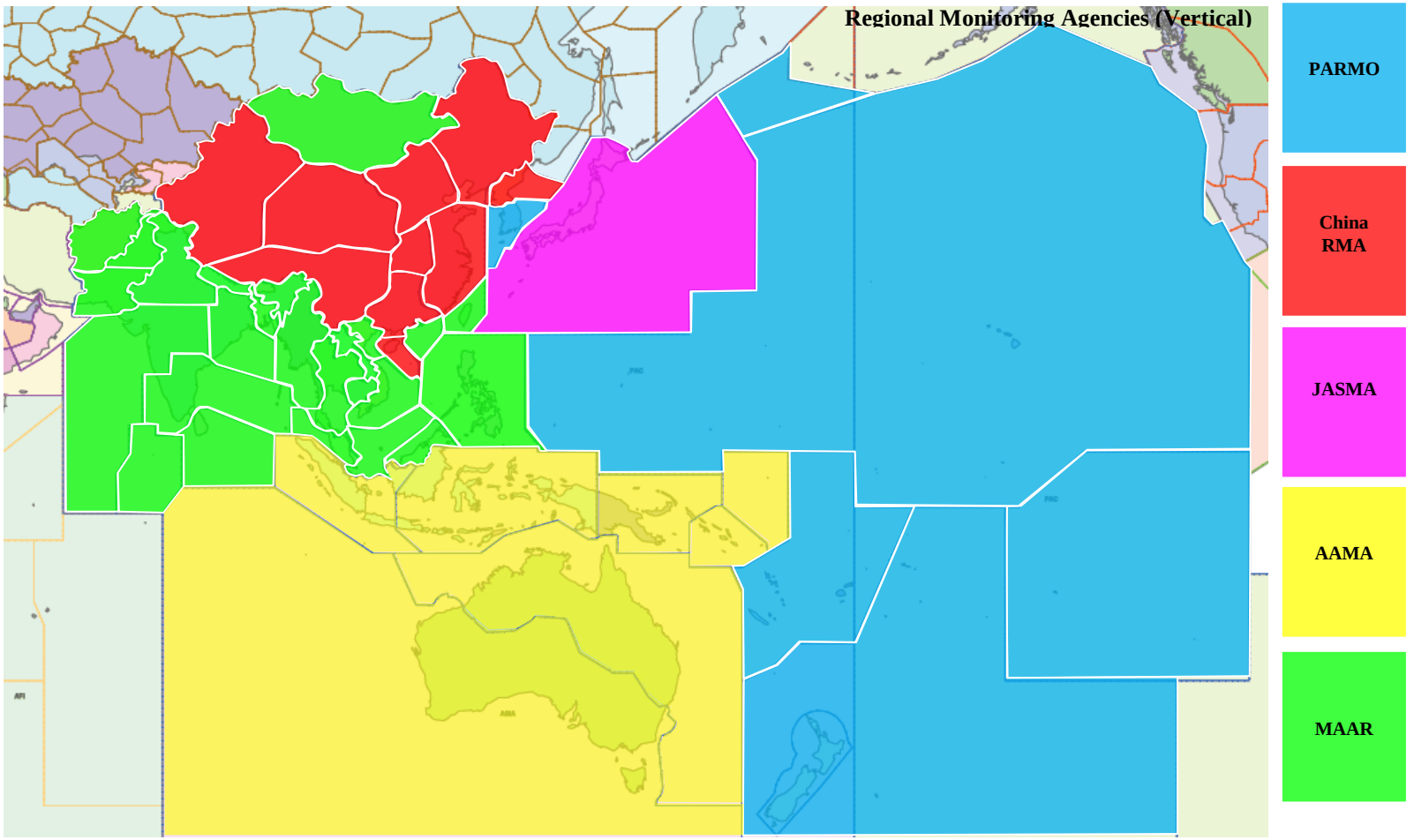
Organisation *(including contact officer)*	**State**	**Competency**	**Status**	**Airspace assessed (FIRs)**
Australian Airspace Monitoring Agency (AAMA) - Airservices https://www.airservicesaustralia.com/about-us/our-services/aama/ Dr Amelia Gontar, Risk Intelligence Specialist Safety and Risk Airservices Australia Email: amelia.gontar@airservicesaustralia.com; or aama@airservicesaustralia.com;	Australia	RMA	Current	Brisbane, Honiara, Jakarta, Melbourne, Nauru, Port Moresby and Ujung Pandang (including Timor-Leste) FIRs
		EMA	Current	Brisbane, Melbourne, Honiara,-Nauru, and Port Moresby FIRs

China RMA - **Air Traffic Management Bureau, (ATMB) of Civil Aviation Administration of China (CAAC)** http://www.chinarma.cn Mr.Yongyue Chen (Monsoon), Coordinator of China RMA, ADCC, ATMB of CAAC Email: rmachina@rmachina.cn	China	RMA & EMA	Current	RMA for: Beijing, Guangzhou, Kunming, Lanzhou, Pyongyang, Sanya, Shanghai, Shenyang, Urumqi, and Wuhan FIRs. EMA for: Lanzhou and Urumqi FIRs
India Bay of Bengal Arabian Sea Indian Ocean Safety Monitoring Agency (BOBASMA) http://www.aai.aero/public_notices/aaisite_test/bobasma_index.jsp Mr. A. P. Udayanarayanan Joint General Manager (ATM) Phone No:+ 91 44 22561253 Fax No: +91 44 22561740 Email: bobasmachennai@gmail.com : bobasma@aai.aero	India	EMA	Current	Chennai, Colombo, Delhi, Dhaka, Kabul, Karachi, Kolkata, Lahore, Male, Mumbai, Yangon,
Japan Airspace Safety Monitoring Agency (JASMA) - Japan Civil Aviation Bureau (JCAB) https://www.jasma.jp Mr. Yasuhiro MARUTSUKA, Special Assistant to the Director, Flight Procedures and Airspace Program Office, Japan Civil Aviation Bureau, Email : marutsuka-y0799@mlit.go.jp : hqt-JASMA@gxb.mlit.go.jp : jasma-hq@jasma.jp Central Reporting Agency Japan (CRA Japan) Mr. Yukio IMADA, Special Assistant to the Director, Air Navigation Services Planning Division, Civil Aviation Bureau, MLIT Email: imada-y037c@mlit.go.jp	Japan	RMA and EMA CRA	Current Current	Fukuoka FIR

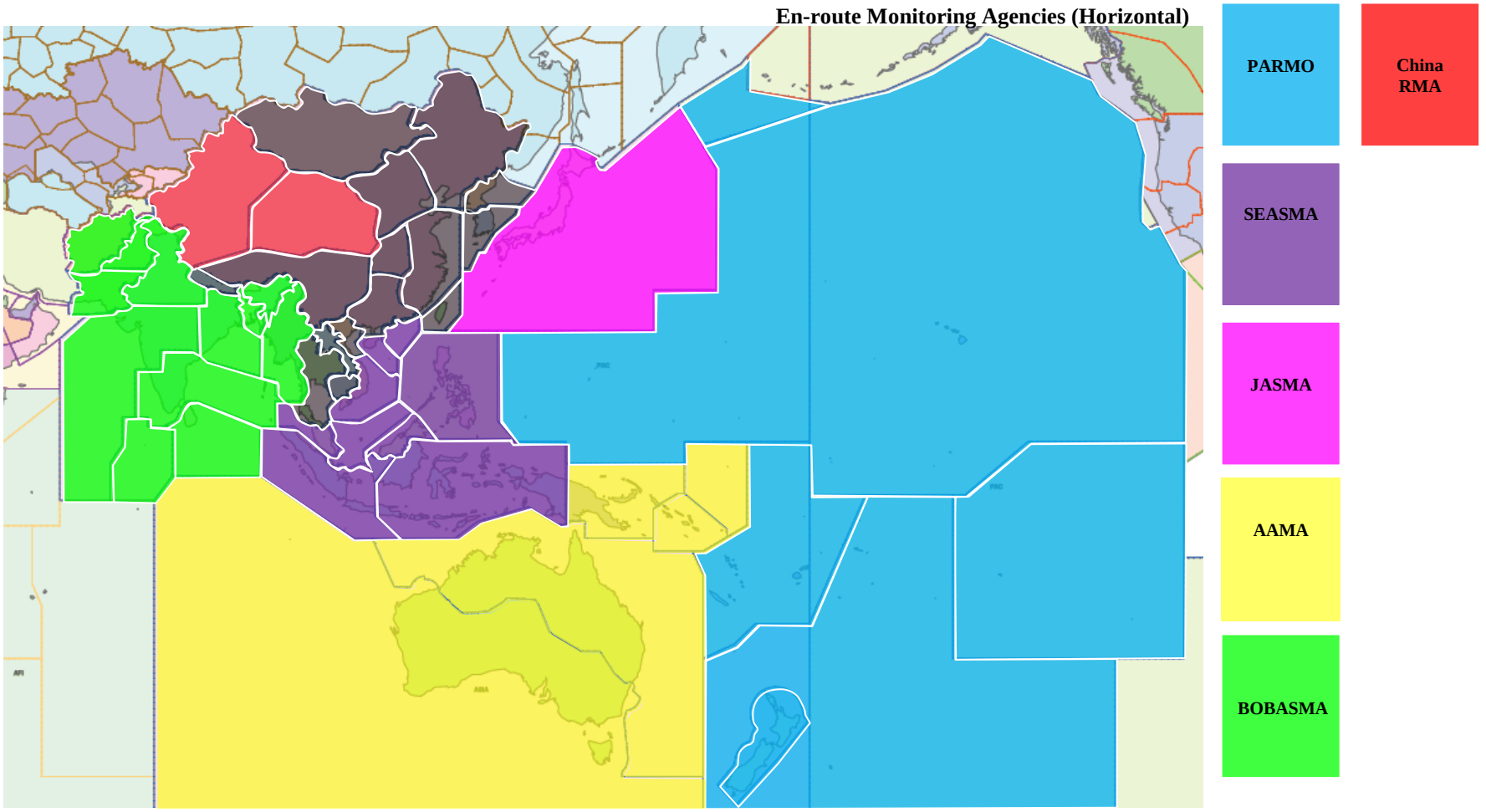
Monitoring Agency for the Asia Region (MAAR) **Aeronautical Radio of Thailand LTD** (AEROTHAI) http://www.aerothai.co.th/maar ~~Mr. Theeravut Sungseemek~~ Miss Saifon Obromsook Director, Safety Management Department & MAAR AEROTHAI Email: maar@aerothai.co.th	Thailand	RMA	Current	Bangkok, Kolkata, Chennai, Colombo, Delhi, Dhaka, Hanoi, Ho Chi Minh, Hong Kong, Kabul, Karachi, Kathmandu, Kota Kinabalu, Kuala Lumpur, Lahore, Male, Manila, Mumbai, Phnom Penh, Singapore, Taibei, Ulaan Bataar, Vientiane, Yangon FIRs
Pacific Approvals Registry and Monitoring Organization (PARMO) – Federal Aviation Administration (US FAA) http://www.faa.gov/air_traffic/separation_standards/parmo/ Christine Falk Federal Aviation Administration Separation Standards Analysis Branch Safety Analysis Subject Matter Expert Email: parmo@faa.gov	USA	RMA and EMA	Current	RMA for Anchorage Oceanic, Auckland Oceanic, Incheon, Nadi, Oakland Oceanic, Tahiti FIRs EMA for Anchorage Oceanic, Auckland Oceanic, Nadi, Oakland Oceanic, Tahiti FIRs
South East Asia Safety Monitoring Agency (SEASMA) - **Civil Aviation Authority of Singapore (CAAS)** ~~Mr. Chew Han Jun~~ ~~Principal Air Traffic Control Manager (ANS Safety & Security), Air Navigation Services Group~~ ~~Email: chew_han_jun@caas.gov.sg;~~ Mr. Goh Wen Pei, Air Traffic Control Manager (ANS Safety & Security), Air Navigation Services Group, Email: goh_wen_pei@caas.gov.sg; https://www.caas.gov.sg/operations-safety/airspace/south-east-asia-safety-monitoring-agency	Singapore	EMA and CRA	Current	EMA for Hong Kong, Ho Chi Minh, Kota Kinabalu, Kuala Lumpur, Manila, Jakarta, Sanya, Singapore and Ujung Pandang FIRs CRA for Singapore, Viet Nam and Philippines

FIT-ASIA ICAO Asia and Pacific Regional Office Email: apac@icao.int; htakata@icao.int Mr. Kwek Chin Lin Chair, FIT-Asia Email: kwek_chin_lin@caas.gov.sg Mr. Michael Matyas, Boeing Engineering Email: michael.matyas@boeing.com	FIT-Asia States Boeing USA	FIT CRA	Current Current	FIRs in the Asian Region not covered by IPACG/FIT and ISPACG/FIT FIRs in the Asian Region not covered by IPACG/FIT, ISPACG/FIT, JASMA or SEASMA
IPACG/FIT Mr. Yukio IMADA IPACG/FIT Co-Chair (JCAB) Email : imada-y037c@mlit.go.jp Mr. John Roman FAA IPACG/FIT Co-Chair (FAA) Email: john.roman@faa.gov	Japan and USA	FIT & CRA	Current	North & Central Pacific (Oceanic airspace within Fukuoka FIR, and Anchorage & Oakland FIRs)
ISPACG/FIT Mr. Todd Kendall Airways New Zealand ISPACG Co-Chair Email: Todd.Kendall@airways.co.nz Mr. Ahmad Usmani FAA	ISPACG States	FIT&CRA	Current	South Pacific FIRs and members of the Informal South Pacific ATS Coordination Group (ISPACG)

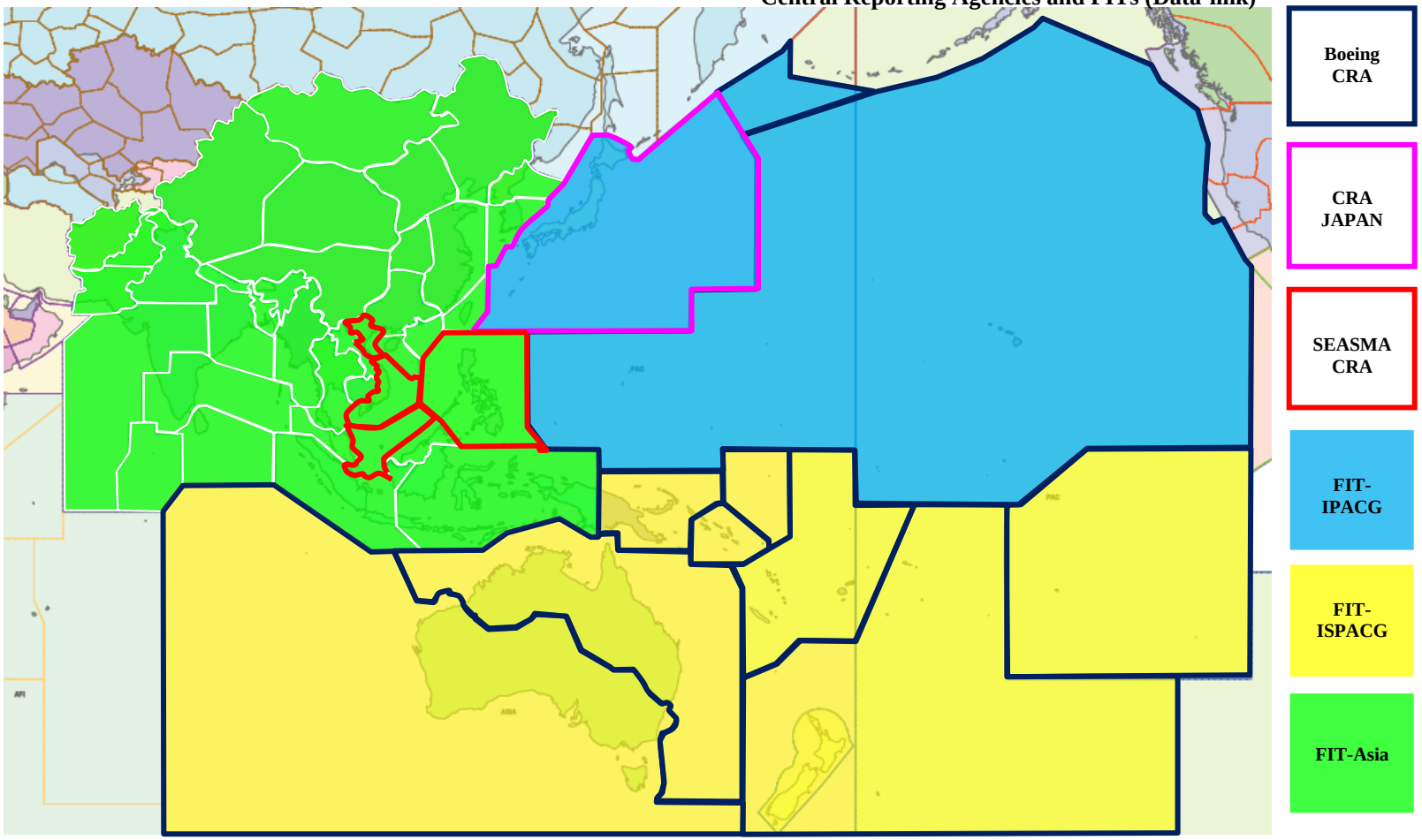
ISPACG Co-Chair Email: ahmad.usmani@faa.gov				
Ms. Lisa Bee, Inmarsat Aviation ISPACG/FIT Chair Email: Lisa.Bee@inmarsat.com	Inmarsat	FIT		
Mr. Michael Matyas, Boeing Engineering ISPACG lead Email: michael.matyas@boeing.com	Boeing USA	CRA		


Regional Monitoring Agencies (Vertical)
PARMO
China RMA
JASMA
AAMA
MAAR

En-route Monitoring Agencies (Horizontal)



Central Reporting Agencies and FITs (Data-link)



SURVEY OF THE STATUS OF CURRENT AND PLANNED IMPLEMENTATION OF PERFORMANCE-BASED HORIZONTAL SEPARATION MINIMA

(proposed change marked up)

Instructions:

1. Complete the Survey at least once annually and return by email to the ICAO APAC Regional Office (apac@icao.int) **by NOT LATER THAN 28 FEBRUARY EACH YEAR.**

2. **Administrations that provide ATC Separation Services in Category R airspace**[1]:
   - Complete all sections of the form.

3. **Administrations that do not provide separation services in Category R airspace:**
   - Complete Section 1 Group A (question A3), Group D and E

     ~~*Refer*~~ *ICAO Doc 9869 – PBCS Manual Appendix A refers.*

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[1] The Asia/Pacific Seamless Air Navigation Services Plan defines Category R Airspace: [1] Category R: remote en-route airspace with Air Traffic Services (ATS) HF or CPDLC communications and outside the coverage of ground-based surveillance ~~mote~~ coverage.

1. Has your ~~State/~~Administration completed any of the following preparations for PBCS implementation?					
	Task Group	**Task ID**	**TASK descriptor**	**Y/N**	**If NO, Planned Date**
PBCS Implementation Task List	Group A	A-1	AIP (Prescription of an RCP/RSP specification. Also see B-3 below)		
		A-2	PBCS policies, objectives supporting safety oversight of ANSP PBCS operations		
		A-3	PBCS policies, objectives supporting safety oversight of Aircraft Operator and Aircraft System PBCS operations		
		A-4	Proposal for Amendment to ICAO Doc 7030 - *Regional Supplementary Procedures* for PBCS operations , if applicable		
	Group B	B-1	PBCS Implementation Plan		
		B-2	Target dates for PBCS and relevant ATM operations		
		B-3	RCP/RSP specifications		
		B-4	PBCS awareness		
	Group C	C-1	Operational concepts and procedures for PBCS operations		
		C-2	ATM automation system changes to use flight plan RCP/RSP indicators		
		C-3	ATM automation changes for PBCS monitoring		
		C-4	Confirm initial ANSP compliance with RCP/RSP specifications		
	Group D	D-1	Aircraft operator readiness		
		D-2	Confirm initial operator and/or aircraft type/system compliance with RCP/RSP		
	Group E	E-1	PBCS monitoring, analysis and reporting - post implementation		

2. Does your ~~State~~/Administration submit data link problem reports (PRs) to a recognized Central Reporting Agency (CRA)?	**Y/N**	**If NO, Planned Date**

3. Does your ~~State~~/Administration monitor and analyse data link performance in accordance with the following specifications and report the analysis to a recognized FANS Interoperability Team (FIT)?				**Y/N**	**If NO, Planned Date**
Communication Specifications & Interoperat~~a~~bility Standards	Normal	RCP240	FANS1/A CPDLC		
	Alternate	RCP400	SATVOICE		
		RCP400	HF		
Surveillance Specifications & Interoperat~~a~~bility Standards	Normal	RSP180	FANS1/A ADS-C		
	Alternate	RSP400	SATVOICE		
		RSP400	HF		

4. Has your ~~State/~~Administration implemented, or does it plan to implement, the following performance-based horizontal separation minima?				**Yes, already implemented**	**Yes, future (Planned Date)**	**NO**
Navigation Specifications & Applicable ATM Operations	RNAV/RNP	RNAV/RNP 10, RNP 4, RNP 2	50 NM Lateral Separation *Communication other than direct controller-pilot VHF voice*			
		RNAV/RNP 10, RNP 4	50 NM Longitudinal Separation *RCP/240 and RSP/180*			
		RNP 4 or RNP 2	30 NM Longitudinal Separation *RCP/240 and RSP/180*			
			30 NM Lateral Separation *RCP/240 and RSP/180* *In cases where the ANSP has considered there is insufficient operational benefit to justify the investment in the change from 30 NM to 23 NM.*			
			23 NM Lateral Separation *RCP/240 and RSP/180*			
			20 NM Longitudinal Separation *RCP/240 and RSP/180*			
			Other planned or implemented separations dependent on RCP240/RSP180 *Please also provide the DOC 4444 PANS-ATM reference.*			

Excerpt - ATM and Airspace Safety Deficiencies List – Updated 26 July 2022 (FIT-Asia/12)

Identification		Deficiencies			Corrective Action			
Requirements	**States/ facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action****
Data Link Performance Monitoring and Analysis Requirements of Annex 11 paragraph 2.29 and/or 3.3.5.2 not met.								
	India	Post-implementation monitoring not implemented	5/6/2017	Performance monitoring and analysis not reported for the Mumbai FIR~~s~~.	Performance monitoring and analysis reported for Chennai and Kolkata FIRs only. Delhi FIR N/A.	India	TBD	A
	Maldives	Post-implementation monitoring not implemented	29/5/2015	Problem Reports not provided to CRA. Performance monitoring and analysis not reported to FIT.		Maldives	TBD	A

FIT-ASIA — TASK LIST

(Last updated 9 June 2023)

ACTION ITEM	DESCRIPTION	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
7/1	All APAC FIT and CRA to provide a list of States having submitted problem report and performance analysis reports to CRA (including number of reports) and FIT	Ongoing	FIT-Asia CRA Japan IPACG/FIT ISPACG/FIT SEASMA	Open	FIT-Asia/7 IP/3 To be provided one month prior to each annual FIT-Asia meeting Updated FIT-Asia/10
7/2	Direct correspondence to survey non-respondent States with FIRs listed in Doc 7030 with performance-based separations	Ongoing ~~FIT-Asia/12~~ ~~FIT-Asia/13~~ FIT-Asia/14	Secretariat	Open	FIT-Asia/7 WP/4 and IP/13 Include availability of guidance for operations authorizations Updated ~~FIT-Asia/11~~ FIT-Asia/12
8/1	States to complete annual data link performance analysis in new template format	Ongoing ~~By 31 March each year~~ 28 February each year	States	Open	1. Forward to Secretariat for forwarding to State responsible for aggregated Regional data. 2. Prepare report of State performance for FIT-Asia FIT-Asia/12 WP/8 and Flimsy 2 (Subject RASMAG agreement to Draft Conclusion)

ACTION ITEM	DESCRIPTION	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
8/2	Prepare aggregated Regional data link performance data for submission to FIT-Asia and RASMAG	Ongoing By 31 May each year	~~USA~~ ~~China (2021-2022)~~ Japan (2023-2024)	Open	Rotational responsibility ~~The US will work with Europe to assure poor performing global fleets are reported to the states of registry outside of their region of operation.~~ ~~Following FIT-Asia/10 China contacted the Secretariat and volunteered to take on this responsibility. China subsequently provided the report to FIT-Asia/11~~ Updated ~~FIT-Asia/11~~ FIT-Asia/12
9/1	Aircraft Operators to ensure contact details on the FANS CRA website are up to date, and include, the correct contact for approving release of data link logs	Ongoing	IATA States (non IATA members) Boeing CRA	Open	FIT-Asia/9 Report paragraph 2.5 Updated FIT-Asia/10
9/5	Review and develop Draft of new version of *Guidance Material for End-to-End Safety and Performance Monitoring of ATS Data Link Systems in the APAC Region* in cooperation with CNS subject matter experts. Include region-specific matters from Appendix B to the GOLD Manual (to be removed from the manual in 2020)	~~FIT-Asia/12~~ FIT-Asia/13	China, India, Indonesia, New Zealand, Singapore, USA, Boeing CRA, Secretariat FIT-Asia/SWG	~~Open~~ Closed	FIT-Asia/9 Report paragraphs 3.5 and 5.1 Updated ~~FIT/Asia/11~~ ~~FIT/Asia/12~~ Transfer to RASMAG
10/1	Provide details of operators that were not signed up to the PBCS Charter, for IATA to follow up to encourage their participation	~~FIT-Asia/12~~ FIT-Asia/13	Fit-Asia CRA/IATA	~~Open~~ Completed	FIT-Asia/10 Report paragraph 2.7 Progress to be reported to ~~FIT-Asia/11~~ FIT-Asia/13

ACTION ITEM	DESCRIPTION	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
10/3	Confirm need for Doc 7030 procedure for Hong Kong FIR ~~and Sanya FIR~~ (50 NM longitudinal)	~~10 September 2021~~ ~~FIT-Asia/13~~ RASMAG/28	Hong Kong, China ~~China~~ Secretariat	Open	FIT-Asia/10 Report paragraph 3.17 FIT-Asia/11 Report paragraph 3.21 and Table 3. Updated FIT-Asia/12
11/1	Explore options to make a formal approach to the States of Operator/Registry of two operators failing to release data link logs for CRA analysis	~~RASMAG/26~~ RASMAG/27	Secretariat, Boeing CRA	~~Open~~ Completed	FIT-Asia/11 Report paragraph 2.6 Updated FIT-Asia/12
11/2	Contact relevant authority to determine whether data link ground station NTX (Natunas) can be reactivated or relocated.	~~FIT-Asia/12~~ ~~FIT-Asia/13~~ FIT-Asia/14	Indonesia/SITA/Boeing CRA	Open	FIT-Asia/11 Report paragraph 2.13 Updated ~~FIT-Asia/12~~ FIT-Asia/13
11/4	Provide separate SATCOM and VHF data in data link performance reports	~~31 March 2022~~ 28 February 2023	Sri Lanka and SITA	~~Open~~ Completed	FIT-Asia/11 Report paragraph 4.49 Updated FIT-Asia/12
12/1	Consider sharing experience and lessons learned in PBCS data analyse process	FIT-Asia/13	Secretariat	~~Open~~ Completed	FIT-Asia/12 Report paragraph 4.40
12/2	Direct correspondence to Papua New Guinea on the PBCS monitoring and survey	30 September 2022	Secretariat and ISPACG/FIT	~~Open~~ Completed	FIT-Asia/12 Report paragraph 6.2
13/1	Provide a report on the current CRA service agreement with States/Administrations in the APAC	30 June 2023	APANPIRG recognized CRAs	Open	FIT-Asia/13 Report paragraph 3.8
13/2	Establish the service agreement with an APANPIRG recognized CRA	Ongoing	All States/Administrations providing ADS-C and/or CPDLC	Open	FIT-Asia/13 Report paragraph 3.8
13/3	Consider signing up for the PBCS Global Charter	Ongoing	All States/Administrations and all aircraft operators	Open	FIT-Asia/13 Report paragraph 3.14