INTERNATIONAL CIVIL AVIATION ORGANIZATION

DRAFT

REPORT OF THE SIXTEENTH MEETING OF THE FANS INTEROPERABILITY TEAM-ASIA (FIT-ASIA/16)

BANGKOK, THAILAND, 9 – 11 JUNE 2026

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

Approved by the Meeting
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INTRODUCTION

Meeting

1.1 The Sixteenth Meeting of the FANS Interoperability Team – Asia (FIT-Asia/16) was held at the Kotaite Wing of the ICAO Asia and Pacific (APAC) Office in Bangkok, Thailand, from 9 to 11 June 2026.

Attendance

2.1 A total of 32 in-person participants and two online participants from 13 States, two industry partners, and one international organization, including Cambodia, China, India, Indonesia, Japan, Lao PDR, Malaysia, Philippines, Singapore, Sri Lanka, Thailand, United States, Boeing, Viasat and ICAO were participated in the FIT-Asia/16 meeting. The list of participants is provided at **Appendix A** to the Report.

Officers and Regional Office

3.1 Mr. Hong Yang, Engineer, China Regional Monitoring Agency, chaired the meeting.

3.2 Mr. Hiroyuki Takata, Regional Officer ATM, ICAO APAC Office, was Secretary of the Meeting. He was assisted by Mr. Mior Adli Bin Mior Sallehhuddin, Regional Officer ATM, and Dr. Trish Prakayphet Chalayonnawin, Programme Analysis Associate ATM.

Opening of the Meeting

4.1 Mr. Hong Yang welcomed participants to the Meeting.

4.2 On behalf of Mr. Tao Ma, Regional Director, ICAO APAC Office, 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 16 Working Papers (WP), seven Information Papers (IP), and one presentation considered by the Meeting.

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

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

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

6.1 FIT-Asia records its actions in the form of Draft Conclusions, 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 APAC 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/Draft Decisions

Nil

7.2 List of Conclusions/Decisions

Nil

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REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Agenda

Adoption of Agenda

1.1 The FIT-Asia/16 agenda (WP/01) was adopted by the Meeting.

Agenda Item 2: Central Reporting Agency Reports

FANS Interoperability Team (FIT) Central Reporting Agency (CRA) Problem Report Briefing (WP/02)

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/). The Meeting was also informed that the website was used by multiple organizations, namely FIT-Asia, the Informal South Pacific ATS Coordinating Group (ISPACG) FIT, the Informal Pacific Air Traffic Control (ATC) Coordinating Group (IPACG) FIT, and the North Atlantic (NAT) Technology and Interoperability Group (TIG).

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

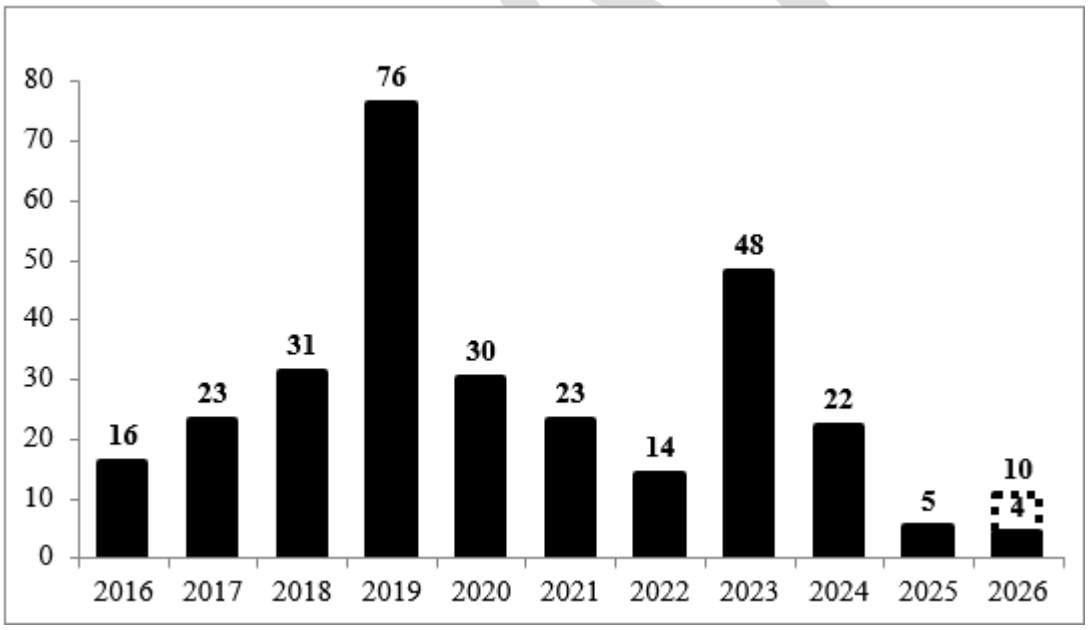

Figure 1: FIT-Asia PRs per Year

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

a) 3785-RA, Open; and

b) 3789-RA, Open.

2.4 The Meeting noted that 777 AIMS BPV18 software had become available in April 2025, resolving PRs 2292-SN, 2821-SH and 3090-SH, and implementing the ACARS RAT1 function to improve Performance-Based Communications and Surveillance (PBCS) time performance in VHF-to-SATCOM transition areas. The Meeting further noted that 747 NG FMC BP4.1 software and 787 CMF BPv7 software were expected to become available in the third quarter of 2026. These software updates would resolve PRs 2892-KS and 3251-GM for the 747 fleet, and PRs 2685-MM, 3119-MM, 3264-MM, 3344-MM and 3534-MM for the 787 fleet. The 787 software would also implement the ACARS RAT1 function to improve PBCS time performance in VHF-to-SATCOM transition areas.

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

a) 3820-RA, Open, Air – Technical;

b) 3856-GD, Closed as Duplicate / Air – Technical;

c) 3874-RA, Closed – Ground – Technical; and

d) 3862-GD, Open – Ground – Procedural.

2.6 The Meeting noted that degraded B777 RSP180 performance had been linked to avionics VHF ground station handoff logic. Improvements in BPV18 and BPV19 were expected to address the issue, and the PR remained open pending performance monitoring. The Meeting also noted that a corrupted ADS-C downlink had caused operational disruption at CAA Singapore and that SITA was implementing corrective action. This PR was closed. In addition, the Meeting noted a B748 logon issue involving RPHI, where a full connection was not established due to the absence of a Connection Request following an AFN ACK. The PR remained under investigation.

2.7 The FIT-Asia CRA was aware of the following significant new PRs that occurred in other areas around the world, but which was relevant to FIT-Asia States.

a) 3752-MM, Open.; and

b) 3801-RA, Open.

2.8 The Meeting noted a reported B789 anomaly involving CPDLC and ADS-C timestamps, FOM values and ETA calculations, which Boeing advised could be associated with GPS interference. Boeing and its avionics suppliers were continuing efforts to improve GPS interference resilience, and the PR remained open. The Meeting also noted a B777 ADS-C contract establishment issue reported by ISAVIA, which Boeing had traced to a timing conflict between an ADS-C disconnection from one ATSU and a contract request from another. Boeing advised that the issue would be addressed in a future software update, and the PR remained open.

2.9 The FIT-Asia CRA also provided information on less significant new PRs relevant to FIT-Asia States.

a) 3857-CJ, Active; and

b) 3825-MM, Active.

2.10 The Meeting acknowledged the importance of promoting the expeditious resolution of Active and Open PRs.

2.11 Regarding PR 3862, it was recalled that a response had previously been provided, including a time-sequence diagram showing that an unintended disconnection request had been automatically transmitted by the aircraft during an active CPDLC communication session, followed by a logon re-initiation. The Philippines advised that the current system might not adequately handle such mid-session disconnections owing to a limitation whereby the aircraft was assumed to remain logged on, affecting data retention and reconnection processing. The issue had been raised with SITA and a response was awaited. The Philippines acknowledged the limitation and undertook to provide further updates to support closure of the PR.

2.12 Boeing advised that, following agreement with Singapore to exclude duplicate PRs from the statistics, the number of reported PRs had decreased from 56 to 6 and remained at 6 during the current reporting period. Many of the PRs related to B777 PBCS performance issues and continued to be monitored following the release of B777 AIMS BPV18. Boeing further advised that the North Atlantic region continued to record the highest number of PRs.

2.13 Regarding PR 3874, information previously provided by SITA indicated that the message had been corrupted during reception by the ground system owing to weak signal strength. The corruption occurred in the message header and was therefore not detected by the CRC check. It was further noted that message corruption in multiple locations could remain undetected and that enhancements to the CRC checking process were being implemented. The corrupted message was subsequently forwarded to Singapore, resulting in a ground system issue that required corrective action.

2.14 Boeing advised that improvements had been made to the aircraft's VHF handoff logic, particularly in the selection of VHF ground stations during arrival operations. These enhancements were separate from the route timer changes introduced in B777 AIMS BPV18. Additional improvements had also been incorporated into BPV19, which was expected to be released the following year. Boeing indicated that the combined enhancements in BPV18 and BPV19 were expected to address the issue reported by Singapore.

CPDLC Uplink Issue Caused by Duplicate 5LNC (WP/15)

2.15 The Secretariat presented information on CPDLC route uplink issues associated with duplicate five-letter name-codes (5LNCs). The paper highlighted findings from investigations conducted by the NAT CPDLC Route Clearance Project Team, which identified cases where duplicate 5LNCs resulted in incorrect waypoint selection during CPDLC route uplink processing, creating the potential for route deviations and increased flight crew workload.

2.16 The Meeting noted that the issue could affect CPDLC route uplink messages containing route clearances and direct-to instructions, potentially resulting in incorrect route loading, route uplink rejection and deviations from ATC-cleared routes. The paper also highlighted interoperability considerations involving aircraft avionics, navigation databases and CPDLC route uplink procedures.

2.17 The Meeting further noted ongoing efforts by the ICAO APAC Office and States and Administrations to address duplicate 5LNCs within the APAC region. Whilst the number of duplicated 5LNCs had been reduced significantly since the 2018 ICAO global review, approximately 1,269 duplicated 5LNCs remained in the region. The meeting recognised the importance of continued collaboration amongst stakeholders to mitigate interoperability risks associated with duplicate 5LNCs and support safe CPDLC operations.

2.18 Boeing advised that similar occurrences had been reported extensively by the FAA, particularly involving B737 aircraft. It was explained that, when a CPDLC uplink contained a duplicate waypoint identifier, the B737 flight management system selected the waypoint closest to the departure airport rather than the aircraft's current position, potentially resulting in a route deviation. Boeing further advised that mitigation measures included increased controller and flight crew awareness and that a software modification had been developed to enable the B737 to select the waypoint closest to the aircraft's present position. The modification was undergoing certification. Testing of other Boeing aircraft types, including the B777 and B787, had not identified similar behaviour.

2.19 The Meeting noted that duplicate 5LNCs remained a regional concern, with more than 1,200 duplications identified within the APAC region, and that efforts to address the issue had been ongoing since 2018.

Agenda Item 3: PBCS Developments and Implementation

Regional PBCS Implementation Update (WP/03)

3.1 ICAO Secretariat provided an update on the status of PBCS implementation among APAC Administrations, as reported using the 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 Meeting was reminded that States were expected to submit the completed survey report form to the ICAO APAC Office by no later than 28 February each year, even if there had been no changes to the reported status from previous years.

3.3 The survey form could be found at the ICAO APAC Office eDocuments webpage (https://www.icao.int/APAC/Pages/eDocs.aspx).

3.4 The Meeting was informed that the following 18 APAC Administrations had submitted completed survey form for the 2026 update.

Bangladesh, Bhutan, China, Hong Kong China, Fiji, India, Indonesia, Japan, Malaysia, Mongolia, Nepal, New Zealand, Papua New Guinea, Singapore, Sri Lanka, Thailand, United States, Viet Nam.

3.5 **FIT-Asia/16 WP/03 Attachment B** summarized the current implementation of performance-based separations as reported in survey responses since 2017.

3.6 The Meeting encouraged States that had not yet submitted the survey to do so promptly. ICAO Secretariat would consolidate the survey report forms received into a working paper for

presentation at the Thirty-First Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/31).

3.7 ICAO Secretariat recalled the provision of ICAO Annex 11 regarding the requirement for performance monitoring, specifically where RCP/RSP specifications were applied:

> *3.3.5.2 Where RCP/RSP specifications are applied, programmes shall be instituted for monitoring the performance of the infrastructure and the participating aircraft against the appropriate RCP and/or RSP specifications, to ensure that operations in the applicable airspace continue to meet safety objectives. The scope of monitoring programmes shall be adequate to evaluate communication and/or surveillance performance, as applicable.*

3.8 The Meeting noted that ICAO APAC Office would continue to monitor regional implementation, and raise APANPIRG Air Navigation Deficiencies or take other action as necessary in cases where States did not comply with relevant ICAO provisions.

3.9 The Meeting emphasised the need to ensure that PBCS implementation status reports were provided to the ICAO APAC Office in accordance with RASMAG and APANPIRG Conclusions, and that consistency was maintained between PBCS-related reporting, other elements of the survey report form, and successive annual reports.

3.10 Sri Lanka advised that discussions with the relevant authorities regarding PBCS implementation were ongoing and that additional information had been requested from Boeing to support further consideration of the implementation. Sri Lanka indicated that an updated status report would be provided once the necessary information had been received and the relevant decisions had been finalised.

3.11 In response to an inquiry regarding the relationship between PBCS implementation and CRA arrangements, the Secretariat clarified that trial PBCS operations could be conducted without a formal service agreement with the CRA, provided appropriate coordination was undertaken with neighbouring States. However, a formal service agreement with the CRA would be required prior to the implementation of operational PBCS-based separation. The Secretariat further reminded the Meeting of the APAC Project 30/10 implementation target of 2028 and encouraged States and Administrations to finalise the necessary arrangements in support of operational implementation.

Competent Airspace Safety Monitoring Organizations List (WP/04)

3.12 ICAO Secretariat presented the RASMAG List of Competent Airspace Safety Monitoring Organizations (Appendix C to the Report), which was last updated at the RASMAG/30, Bangkok, Thailand, from 14 to 17 July 2025). The Meeting was invited to review and update the list as necessary.

Domestic CPDLC Expansion and MLM Implementation (IP/02)

3.13 The Meeting noted that Japan had provided an update on domestic CPDLC operations, which had commenced in 2022, while oceanic CPDLC had been in service for more than 20 years. Domestic CPDLC operated in a mixed communication environment using VHF and SATCOM and was currently limited to non-time-critical messages. Japan reported plans to progressively expand the range of CPDLC message types over the next two years to improve operational efficiency and reduce controller workload.

3.14 Japan also reported plans to introduce a Message Latency Monitor (MLM) to support the expanded use of domestic CPDLC. The MLM, already implemented in oceanic airspace, was intended to prevent aircraft from acting upon excessively delayed uplink messages. Given the more dynamic nature of domestic operations, Japan proposed an initial MLM timer value of 180 seconds, subject to

further review.

3.15 The Meeting further noted that aircraft behaviour relating to latency monitoring could differ depending on aircraft type and avionics standards, particularly during transfers between FIRs. Japan advised that these interoperability considerations would continue to be assessed as part of the planned expansion of domestic CPDLC services, with implementation expected to commence in the next fiscal year. The Meeting was invited to note the information contained in the paper.

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

Data Link Performance Report for China (WP/05)

4.1 Data link performance data for the Lanzhou and Urumqi FIRs for the period from January to December 2025 was presented by China. CPDLC and ADS-C system performance was measured against the RCP240 and RSP180 specifications.

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

Table 1: Lanzhou FIR ADS-C Performance per Media Type

FIR	**ZLLL**					
Criteria	**RSP180**					
Period	**Jan-June 2025**			**July-December 2025**		
Criteria Met	**Message Counts**	**95%**	**99.90%**	**Message Counts**	**95%**	**99.90%**
99.0-99.89		**% < = 90sec**	**% <= 180sec**		**% < = 90sec**	**% <= 180sec**
Under-Criteria						
By Media Type						
VHF	394706	99.16	99.62	384690	99.22	99.58
SATCOM	233115	97.56	99.52	238397	97.45	99.43
HF	74	40.54	62.16	102	40.19	62.74
ALL	627895	98.5	99.5	623189	98.5	99.5

Table 2: Lanzhou FIR CPDLC Performance per Media Type (January – June 2025)

FIR	**ZLLL**				
Criteria	**RCP240**				
Period	**Jan - Jun 2025**				
		95% benchmark		**99.9% Benchmark**	
		ACP	**ACTP**	**ACP**	**ACTP**
Criteria Met 99.0-99.89 Under-Criteria	**Message Counts**	**% < = 180sec**	**% <= 120sec**	**% < = 210sec**	**% <= 150sec**
By Media Type					

SAT	1222	99.34	99.09	99.42	99.50
VHF	599	100.00	99.33	100.00	99.49
SV	90	98.88	96.66	98.88	100.00
VS	59	100.00	91.52	100.00	96.61
HS	7	71.42	57.14	85.71	57.14
ALL	1977	99.44	98.68	99.54	99.29

Table 3: Lanzhou FIR CPDLC Performance per Media Type (July – December 2025)

FIR	**ZLLL**				
Criteria	**RCP240**				
Period	**Jul - Dec 2025**				
Criteria Met 99.0-99.89 Under-Criteria	**Message Counts**	**95% benchmark**		**99.9% Benchmark**	
		ACP	**ACTP**	**ACP**	**ACTP**
		% < = 180sec	**% <= 120sec**	**% < = 210sec**	**% <= 150sec**
By Media Type					
SAT	1162	98.70	98.02	99.39	99.05
VHF	539	99.62	99.81	99.62	99.81
SV	85	100.00	97.64	100.00	100.00
VS	56	100.00	98.21	100.00	100.00
HS	13	100.00	61.53	100.00	69.23
ALL	1855	99.08	98.27	99.51	99.13

4.3 **Table 4,**

4.5 Table 5 and **Table 6** illustrated the overall 95% requirement for RSP180, which was met within the Urumqi FIR; however, the RCP240 requirement was not achieved due to the limited number of messages.

Table 4: Urumqi FIR ADS-C Performance per Media Type

FIR	**ZWWW**					
Criteria	**RSP180**					
Period	**Jan-June 2025**			**July-December 2025**		
Criteria Met 99.0-99.89 Under-Criteria	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**
By Media Type						
VHF	194468	99.26	99.66	77083	99.27	99.63
SATCOM	105618	97.61	99.49	43149	97.90	99.51
HF	53	28.30	58.49	10	50.00	60.00
ALL	300139	98.60	99.50	120252	98.70	99.50

Table 5: Urumqi FIR CPDLC Performance per Media Type (January – June 2025)

FIR	ZWWW					
Criteria	RCP240					
Period	Jan - Jun 2025					
Criteria Met 99.0-99.89 Under-Criteria By Media Type	Message Counts	95% benchmark		99.84% Benchmark		95.00%
		ACP	ACTP	ACP	ACTP	PORT
		% < = 180sec	% <= 120sec	% < = 210sec	% <= 150sec	% <= 60sec
SAT	6	100	100	100	100	100
VHF	2	100	100	100	100	100
ALL	8	100	100	100	100	100

Table 6: Urumqi FIR CPDLC Performance per Media Type (July – December 2025)

FIR	ZWWW					
Criteria	RCP240					
Period	Jul - Dec 2025					
Criteria Met 99.0-99.89 Under-Criteria By Media Type	Message Counts	95% benchmark		99.84% Benchmark		95.00%
		ACP	ACTP	ACP	ACTP	PORT
		% < = 180sec	% <= 120sec	% < = 210sec	% <= 150sec	% <= 60sec
SAT	5	100	100	100	100	100
VHF	3	100	100	100	100	100
SV	1	100	100	100	100	100
ALL	9	100	100	100	100	100

4.6 The Meeting noted that China RMA had conducted technical oversight visits to major operators and air traffic service providers in China, which confirmed that PR mechanisms were functioning effectively and that no significant PBCS safety issues had been identified.

4.7 The Meeting further noted that China RMA had conducted outreach on emerging data link technologies and had convened the Annual China RMA meeting in October 2025, where stakeholders were encouraged to strengthen PBCS safety awareness and PR reporting practices.

Data Link Performance Report for India (WP/06)

4.8 India presented the data link performance data for 2025 for the Chennai, Kolkata and Mumbai FIRs, and information on actions taken to identify and rectify the causes of performance issues.

4.9 **Tables 7**, **8** and **9** illustrated the overall ADS-C performance per media type down links sent within the Chennai FIR, Kolkata FIR and Mumbai FIR, respectively during 2025. The ADS-C performance by SATCOM and VHF were able to meet the 95% criterion but failed 99.9% criterion, for all three FIRs. The list of stations that failed to meet the criteria was also provided.

Table 7: Chennai FIR ADS-C Performance per Media Type

FIR	CHENNAI					
Criteria	RSP180					
Period	Jan-June 2025			July-December 2025		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% % < = 90sec	99.90% % <= 180sec	Message Counts	95% % < = 90sec	99.90% % <= 180sec
By Media Type						
SATCOM	177566	96.78%	99.07%	178848	97.40%	99.31%
VHF	121595	98.86%	99.66%	141848	99.18%	99.72%
HF						
ALL	299161	97.63%	99.31%	320696	98.19%	99.49%

Table 8: Kolkata FIR ADS-C Performance per Media Type

FIR	Kolkata FIR					
Criteria	RSP180					
Period	Jan-June 2025			July-December 2025		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% % < = 90sec	99.90% % <= 180sec	Message Counts	95% % < = 90sec	99.90% % <= 180sec
By Media Type						
SATCOM	215665	97.21%	99.21%	251573	97.16%	99.19%
VHF	309223	99.36%	99.77%	415438	99.49%	99.83%
HF						
ALL	524888	98.48%	99.54%	667011	98.61%	99.59%

Table 9: Mumbai FIR ADS-C Performance per Media Type

FIR	Mumbai FIR					
Criteria	RSP180					
Period	Jan-June 2025			July-December 2025		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% % < = 90sec	99.90% % <= 180sec	Message Counts	95% % < = 90sec	99.90% % <= 180sec
By Media Type						
SATCOM	569736	96.46%	99.07%	574045	97.50%	99.43%
VHF	253358	96.37%	98.72%	266242	98.22%	99.40%
HF						
ALL	823094	96.44%	98.96%	840287	97.73%	99.42%

4.10 The Meeting noted that limited VHF coverage over oceanic areas within Indian FIRs could affect transition times between VHF and SATCOM, and that available HF data were insufficient to support a statistically significant ADS-C performance assessment.

4.11 The Meeting further noted that India was engaging with Boeing and SITA regarding identified communication network issues and was continuing to monitor RSP180 performance with a view to meeting the required criteria.

4.12 **Tables 10** and **11** summarized overall CPDLC performance per media type for messages sent within the Chennai FIR during 2025, where performance did not meet the RCP240 performance criteria.

Table 10: Chennai FIR CPDLC Performance per Media Type (January – June 2025)

FIR	**Chennai FIR**				
Criteria	**RCP240**				
Period	**Jan - Jun 2025**				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	95% benchmark		99.9% Benchmark	
		ACP **% < = 180sec**	**ACTP** **% <= 120sec**	**ACP** **% < = 210sec**	**ACTP** **% <= 150sec**
By Media Type					
SATCOM	62645	99.56%	99.56%	99.80%	99.70%
ALL	123190	99.70%	99.74%	99.85%	99.82%

Table 11: Chennai FIR CPDLC Performance per Media Type (July – December 2025)

FIR	**Chennai FIR**				
Criteria	**RCP240**				
Period	**Jul-Dec 2025**				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	95% benchmark		99.9% Benchmark	
		ACP **% < =180sec**	**ACTP** **% <= 120sec**	**ACP** **% < = 210sec**	**ACTP** **% <= 150sec**
By Media Type					
SATCOM	75305	99.54%	99.48%	99.80%	99.70%
ALL	150456	99.70%	99.71%	99.86%	99.83%

4.13 **Tables 12** and **13** summarized overall CPDLC performance per media type for messages sent within the Kolkata FIR during 2025, where performance did not meet the RCP240 performance criteria.

Table 12: Kolkata FIR CPDLC Performance per Media Type (January – June 2025)

FIR	Kolkata FIR				
Criteria	RCP240				
Period	Jan - Jun 2025				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark	
		ACP % < = 180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec
By Media Type					
SATCOM	9650	98.99%	99.05%	99.27%	99.28%
VHF	2830	99.65%	99.75%	99.82%	99.80%
HF					
ALL	12480	99.13%	99.20%	99.39%	99.39%

Table 13: Kolkata FIR CPDLC Performance per Media Type (July – December 2025)

FIR	Kolkata FIR				
Criteria	RCP240				
Period	Jul-Dec 2025				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark	
		ACP % < =180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec
By Media Type					
SATCOM	14239	98.86%	98.82%	99.16%	99.16%
VHF	4404	99.84%	99.89%	99.88%	99.90%
HF					
ALL	18643	99.08%	99.07%	99.33%	99.33%

4.14 **Tables 14** and **15** summarized overall CPDLC performance per media type for messages sent within the Mumbai FIR during 2025, where performance did not meet the RCP240 performance criteria.

Table 14: Mumbai FIR CPDLC Performance per Media Type (January – June 2025)

FIR	Mumbai FIR				
Criteria	RCP240				
Period	Jan - Jun 2025				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark	
		ACP % < = 180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec
By Media Type					
SATCOM	60035	99.11%	99.35%	99.47%	99.66%
VHF	14226	99.35%	99.52%	99.56%	99.66%
HF					
ALL	74261	99.15%	99.38%	99.49%	99.66%

Table 15: Mumbai FIR CPDLC Performance per Media Type (July – December 2025)

FIR	Mumbai FIR				
Criteria	RCP240				
Period	Jul - Dec 2025				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark	
		ACP % < =180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec
By Media Type					
SATCOM	67220	99.22%	99.41%	99.60%	99.72%
VHF	18168	99.49%	99.61%	99.65%	99.77%
HF					
ALL	85388	99.27%	99.46%	99.61%	99.73%

4.15 The Meeting noted that ACP monitoring for 2025 within the Chennai, Kolkata and Mumbai FIRs did not meet the 99.9 per cent RCP 240 criterion. The Meeting further noted that limited VHF coverage over oceanic areas within Indian FIRs could contribute to extended transition periods between VHF and SATCOM.

4.16 RCP 240 performance by aircraft operator and type generally met the required 95 per cent criterion, although several operator/type combinations did not achieve the 99.9 per cent target within the Chennai, Kolkata and Mumbai FIRs during 2025. Lower performance was considered likely to be associated with connectivity issues, including SATCOM/VHF transitions and data link transfer between FIRs.

4.17 The Meeting also noted that the identified issues were being addressed through coordination with SITA, DGCA India and the CRA, and that the ANSP was continuing to monitor RCP

240 performance to improve compliance with the required criteria.

4.18 The Meeting noted that India would present two information papers on data analysis at the following session and acknowledged the effort undertaken in support of the data analysis programme. The Meeting further noted India's observation that the current FIT-Asia working paper template was not fully aligned with the latest reporting template agreed for reporting from ANSPs to FIT. The Secretariat advised that the working paper template would be revised accordingly for the next meeting and encouraged States and Administrations to use the updated version, which would be made available on the ICAO APAC Office eDocuments webpage.

Data Link Performance Report for Ujung Pandang FIR (WP/07)

4.19 Indonesia presented the data link performance data for 1 January to 31 December 2025 for the Ujung Pandang FIR, and information on actions taken to identify and rectify the causes of performance issues.

4.20 In summary, ADS-C performance by SATCOM and VHF were able to meet the 95% criterion but failed 99.9% criterion for both January – June and July – December periods, as shown in **Table 16**. Conversely, ADS-C performance via HF did not meet either the 95% or 99.9% criteria.

Table 16: Ujung Pandang FIR ADS-C Performance per Media Type

FIR	**Ujung Pandang FIR**					
Criteria	**RSP180**					
Period	**Jan-Jun 2025**			**Jul-Dec 2025**		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**
By Media Type						
SATCOM	65354	99,48%	99,88%	73813	99,51%	99,88%
HF	170	39,41%	58,82%	260	34,62%	57,44%
VHF	234625	99,04%	99,50%	252590	98,99%	99,45%
ALL	300149	99,10%	99,56%	326663	99,09%	99,51%

4.21 ADS-C performance by SATCOM and VHF met the 95 per cent criterion but did not achieve the 99.9 per cent target during 2025. ADS-C performance by HF did not meet the required criteria, although the assessment was not statistically significant due to the limited amount of data available. Several RGS/GES stations also did not achieve the 99.9 per cent target.

4.22 The Meeting noted that Indonesia had encouraged operators to use SATCOM and VHF in Ujung Pandang FIR and that monitoring of RGS/GES performance had continued. The Meeting further noted that no performance improvement had been observed and that the SSP was expected to coordinate with the ANSP to identify and address the root causes of the poor performance.

4.23 The Meeting noted that aircraft identified with low performance generally exhibited data link connectivity issues associated with CSP or SSP-related factors. The ANSP would continue to assess whether such occurrences were isolated events or indicative of persistent issues, and would continue monitoring with a view to notifying the relevant aircraft operators should the problems persist.

4.24 **Tables 17** and **18** summarized overall CPDLC performance per Media Type for messages sent within the Ujung Pandang FIR during 2025, where performance did not meet the RCP240 performance criteria.

Table 17: Ujung Pandang FIR CPDLC Performance per Media Type (January – June 2025)

FIR	**Ujung Pandang FIR**					
Criteria	**RCP240**					
Period	**Jan-Jun 2025**					
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	95% benchmark		99.9% Benchmark		95%
		ACP	**ACTP**	**ACP**	**ACTP**	**PORT**
		% < = 180sec	**% <= 120sec**	**% < = 210sec**	**% <= 150sec**	**%<60secs**
By Media Type						
SATCOM	13.400	99,51%	99,90%	99,63%	99,90%	97,26%
SV	986	99,24%	100,00%	99,33%	100,00%	96,86%
VHF	44.252	99,39%	99,77%	99,52%	99,77%	97,95%
ALL	58638	99,42%	99,78%	99,54%	99,81%	97,78%

Table 18: Ujung Pandang FIR CPDLC Performance per Media Type (July – December 2025)

FIR	**Ujung Pandang FIR**					
Criteria	**RCP240**					
Period	**Jul-Dec 2025**					
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	95% benchmark		99.9% Benchmark		95%
		ACP	**ACTP**	**ACP**	**ACTP**	**PORT**
		% < =180sec	**% <= 120sec**	**% < = 210sec**	**% <= 150sec**	**%<60secs**
By Media Type						
SATCOM	12758	99,39%	99,89%	99,55%	99,91%	97,39%
SV	1043	98,51%	99,90%	98,86%	99,91%	96,40%
VHF	41059	99,29%	99,77%	99,40%	99,80%	97,78%
ALL	54860	99,30%	99,80%	99,43%	99,82%	97,66%

4.25 ACP monitoring of CPDLC messages within Ujung Pandang FIR during 2025 indicated that performance over SATCOM and VHF met the 95 per cent criterion but marginally missed the 99.9 per cent target. Several RGS/GES stations also failed to achieve the 99.9 per cent criterion during different periods of the year.

4.26 The Meeting noted that the observed performance degradation was associated with delays at certain VHF ground stations and broader ground station connectivity issues. Analysis also indicated

that low compliance was partly attributable to high Pilot Operational Response Times (PORT), which affected both station-based and aircraft operator/type performance.

4.27 The Meeting further noted that several aircraft operator/type combinations did not achieve the 99.9 per cent criterion during 2025. The ANSP expected the CSP to identify the causes of the RGS/GES delays and would engage affected airline operators, particularly local operators, to review procedures aimed at reducing PORT and improving CPDLC performance.

4.28 Indonesia advised that an assessment of the available monitoring data had indicated that the performance degradation observed in TX330 during the first half of 2025 had not persisted into the second half of the year, during which performance improved from 91.79 per cent to 97.32 per cent. No recurring trends or similar issues had been identified. Indonesia further advised that performance monitoring would continue and that coordination with the regulator and other relevant stakeholders would be maintained to address any future recurrence.

4.29 The Meeting further enquired about planned actions to address PORT, which had been identified as a contributing factor to CPDLC transaction delays. Indonesia advised that engagement with the affected airline operators would be undertaken and that the results of subsequent validation and analysis activities would be reported to future FIT-Asia meetings, as appropriate.

Data Link Performance Report for Malaysia (WP/08)

4.30 Malaysia presented the data link performance report for the Kuala Lumpur FIR for January to December 2025.

4.31 **Table 19** provided the overall ADS-C performance per media type for the Kuala Lumpur FIR, in 2025.

Table 19: Kuala Lumpur FIR ADS-C Performance per Media Type

FIR	Kuala Lumpur FIR WMFC					
Criteria	RSP180					
Period	Jan-June 2025			July-December 2025		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% % < = 90sec	99.90% % <= 180sec	Message Counts	95% % < = 90sec	99.90% % <= 180sec
By Media Type						
SATCOM	232,166	97.87%	99.15%	237,046	98.06%	99.37%
VHF	231,471	98.96%	99.38%	296,900	99.14%	99.50%
HF	141	32.45%	49.88%	102	30.17%	49.87%
ALL	463,778	98.40%	99.25%	534,048	98.65%	99.43%

4.32 ADS-C performance within the Kuala Lumpur FIR during 2025 generally met the RSP180 requirement, with SATCOM and VHF performance remaining compliant while HF continued to fall below the required criteria. Improvements in RGS performance were observed during the second half of the year, and no single RGS, GES or CSP-related issue was identified as a consistent source of degradation. The Meeting noted that continued monitoring of RGS and GES performance would be undertaken to ensure sustained compliance and identify emerging trends.

4.33 The Meeting further noted that operator and aircraft-type performance improved during

the second half of 2025, although most combinations continued to fall short of the 99.9 per cent criterion. Performance issues were primarily attributed to VHF-SATCOM transition delays, SATCOM routing variability and operational factors associated with FIR boundary transitions involving multiple ADS-C contracts. It was also noted that performance results for some operator-aircraft combinations might not have been statistically significant due to low message volumes.

4.34 The Meeting noted that monthly ADS-C performance monitoring had been conducted at the airframe level for aircraft with more than 100 messages and that non-conformance cases, including XAX/A333, TGW/A20N and RBA/A20N, had been reported to MAAR. The Meeting further noted that some aircraft, including MAS B38M, had not filed for PBCS during the reporting period, which may have contributed to the observed performance outcomes.

4.35 **Tables 20** and **21** summarized overall CPDLC performance per Media Type for messages sent within the Kuala Lumpur FIR during 2025, where performance did not meet the RCP240 performance criteria.

Table 20: Kuala Lumpur FIR CPDLC Performance per Media Type (January – June 2025)

FIR	Kuala Lumpur FIR WMFC				
Criteria	RCP240				
Period	Jan - Jun 2025				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark	
		ACP % < = 180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec
By Media Type					
SATCOM	12,907	94.45%	98.88%	95.51%	99.19%
VHF	35,900	96.53%	99.54%	97.02%	99.64%
HF	1,212	78.22%	85.40%	83.33%	91.67%
ALL	50,019	95.55%	99.03%	96.30%	99.33%

Table 21: Kuala Lumpur FIR CPDLC Performance per Media Type (July – December 2025)

FIR	Kuala Lumpur FIR WMFC				
Criteria	RCP240				
Period	Jul - Dec 2025				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark	
		ACP % < =180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec
By Media Type					
SATCOM	13,770	97.68%	98.71%	98.37%	99.09%
VHF	46,048	99.18%	99.54%	99.31%	99.63%
HF	1,077	78.18%	82.82%	85.24%	90.16%

ALL	60,895	98.47%	99.06%	98.84%	99.34%

4.36 CPDLC performance within the Kuala Lumpur FIR during 2025 generally met the RCP240 95 per cent benchmark and remained within acceptable limits for the 99.9 per cent benchmark. SATCOM and VHF performance were generally compliant, while HF performance remained below the required criteria, although HF usage was limited. Analysis of ACTP performance indicated that communication system and network performance were generally satisfactory.

4.37 The Meeting noted that where ACP degradation occurred despite acceptable ACTP performance, the delays were primarily attributable to Pilot Operational Response Time (PORT) rather than communication system latency. It was further noted that the relatively low number of message transactions associated with some non-compliance cases limited the statistical significance of the results and did not necessarily indicate systemic performance issues.

4.38 The Meeting further noted that CPDLC performance at the airframe level was generally compliant with the RCP240 95 per cent benchmark, although compliance with the 99.9 per cent benchmark remained inconsistent across several operator-aircraft combinations. Continued monitoring at both airframe and ground infrastructure levels would be maintained to support performance improvement and ensure sustained compliance with performance requirements.).

4.39 The Meeting noted that the trial implementation of 30 NM PBCS separation on ATS route N571 for FL290 and above had commenced on 1 September 2025. The Meeting further noted that Malaysia was in the process of finalising the appointment of CRA for the Kuala Lumpur FIR.

4.40 In response to an inquiry, Malaysia advised that the ongoing trial implementation of 30 NM PBCS separation on ATS route N571 involved India only and was expected to conclude in August 2026. Malaysia further advised that implementation on three additional ATS routes, namely P574, L510 and P628, remained subject to formal coordination and agreement with the relevant neighbouring ATS units, including India and Indonesia, although preparatory coordination activities were already underway.

4.41 Malaysia advised that the PBCS monitoring tool developed by Airways New Zealand had been used to support performance monitoring activities, including validation and cross-checking of monitoring results, and had proven useful in facilitating analysis and discussion of performance data. The Secretariat noted with appreciation that the tool continued to be utilised by several States and Administrations within the APAC region.

Data Link Performance Report for Philippines (WP/09)

4.42 The Philippines presented the data link performance data for the year 2025 for the Manila FIR, and information on actions taken to identify and rectify the causes of performance issues.

4.43 In summary, ADS-C performance by SATCOM and VHF were able to meet the 95% criterion but failed 99.9% criterion for both January – June and July – December periods, as shown in **Table 22**.

Table 22: Manila FIR ADS-C Performance per Media Type

FIR	RPHI					
Criteria	RSP180					
Period	Jan-Jun 2025			Jul-Dec 2025		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% % < = 90sec	99.90% % <= 180sec	Message Counts	95% % < = 90sec	99.90% % <= 180sec
By Media Type						
SATCOM	210849	97.93%	99.70%	199180	97.77%	99.66%
VHF	370692	98.80%	99.58%	610338	98.22%	99.11%
HF	232	45.69%	68.82%	301	46.51%	69.10%
ALL	581,773	98.64%	99.59%	809819	98.14%	99.17%

4.44 ADS-C performance within the Manila FIR generally met the 95 per cent criterion for SATCOM and VHF, while HF performance remained below the required criteria due to very low message volumes. Several RGS/GES stations did not meet the performance targets during 2025, with IG1 and IGW1 continuing to exhibit the most significant shortfalls. Analysis indicated that latency issues were concentrated in areas near the limits of VHF coverage, where transitions between VHF and SATCOM could contribute to delays.

4.45 The Meeting noted that Manila would continue to monitor RGS/GES performance and coordinate with SITA regarding persistent non-conformances. It was further noted that SITA had not yet provided the requested performance reports for several underperforming stations and was instead progressing a migration to a new telecommunications provider.

4.46 The Meeting also noted that a number of aircraft operator/type combinations exhibited persistent or recurring latency issues. In some cases, the performance degradation appeared to be associated with specific airframes, SATCOM routing, or non-compliant flight plan filings. Manila would continue to monitor ADS-C performance and coordinate with the relevant operators through CAAP where significant or persistent non-compliance was identified.

4.47 **Tables 23** and **24** summarized overall CPDLC performance per Media Type for messages sent within the Manila FIR during 2025, where performance did not meet the RCP240 performance criteria.

Table 23: Manila FIR CPDLC Performance per Media Type (January – June 2025)

FIR	RPHI					
Criteria	RCP240					
Period	Jan-Jun 2025					
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% Benchmark		99.9% Benchmark		95%
		ACP	ACTP	ACP	ACTP	PORT
		% < = 180sec	% <= 120sec	% < = 210sec	% <= 150sec	%< 60secs
By Media Type						

SATCOM	13966	98.94%	99.90%	99.09%	99.91%	93.21%
VHF	15556	98.29%	98.72%	98.52%	98.84%	95.53%
VS	259	96.60%	99.31%	97.30%	99.38%	79.54%
SV	3117	99.78%	99.90%	99.80%	99.92%	98.28%
HV	456	80.81%	75.88%	84.76%	82.89%	74.56%
ALL	33354	98.27%	98.70%	98.52%	98.89%	95.01%

Table 24: Manila FIR CPDLC Performance per Media Type (July – December 2025)

FIR	**RPHI**					
Criteria	**RCP240**					
Period	**Jul-Dec 2025**					
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	95% Benchmark		99.9% Benchmark		95%
		ACP	**ACTP**	**ACP**	**ACTP**	**PORT**
		% <= 180sec	**% <= 120sec**	**% < = 210sec**	**% <= 150sec**	**%< 60secs**
By Media Type						
SATCOM	28612	97.52%	99.94%	97.72%	99.96%	91.22%
VHF	31426	97.17%	98.59%	97.48%	98.74%	94.10%
VS	450	92.10%	99.84%	92.93%	99.88%	73.78%
SV	5959	99.74%	99.99%	99.76%	100.00%	98.24%
HV	780	79.49%	71.41%	83.01%	80.00%	73.85%
ALL	67227	97.21%	98.61%	97.52%	98.83%	93.64%

4.48 CPDLC performance monitoring during 2025 indicated that SYX consistently failed to meet the required criteria throughout the year, while KHH also recorded significant performance shortfalls during the first half of the year. The majority of failures were observed against the 99.9 per cent benchmark and were considered to be influenced by the geographical environment surrounding the Manila FIR, including extensive oceanic areas and frequent transitions between VDL and SATCOM.

4.49 The Meeting noted that Manila would continue to monitor underperforming stations and coordinate with the CSP regarding persistent performance issues. The Meeting also noted that recurring ADS-C/CPDLC system issues, including application unresponsiveness, had been reported and that hardware upgrades were being implemented with the vendor to improve system reliability.

4.50 The Meeting further noted that analysis of selected operator and aircraft type performance indicated that the poor ADS-C performance of certain aircraft, including PAL A321 operations over oceanic areas, could be attributed to the absence of SATCOM capability and reliance on limited VDL coverage in areas where VDL-to-SATCOM transitions occur.

4.51 In response to inquiries, the Philippines advised that measures had been implemented to strengthen the management and resolution of PRs and to ensure that future issues were appropriately coordinated with the responsible service providers. With regard to operators whose aircraft had consistently exhibited RCP performance below the required 95 per cent level, the Philippines advised that the monitoring results had been referred to the relevant regulatory authorities for follow-up action and that progress would be reported at a future meeting.

Data Link Performance Report and Actions for Discussion from Singapore (WP/10)

4.52 Singapore presented the data link performance data for the year 2025 for the Singapore FIR, and information on actions taken to identify and rectify the causes of performance issues.

4.53 **Table 25** summarized overall ADS-C performance per media type for down links sent within the Singapore FIR during 2025, where performance did not meet the RSP180 performance criteria. The ADS-C performance by SATCOM and VHF met the 95% criteria, while HF did not meet the criteria.

Table 25: Singapore FIR ADS-C Performance per Media Type

FIR	**WSJC**					
Criteria	**RSP180**					
Period	**Jan-Jun 2025**			**Jul-Dec 2025**		
Color Key Meets Criteria 99.0% - 99.89% Under Criteria	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**
By Media Type						
SATCOM	139326	94.93%	98.93%	148932	94.99%	99.04%
VHF	637850	99.56%	99.85%	670683	99.52%	99.85%
HF	201	44.63%	69.15%	231	45.02%	70.13%
ALL	777377	98.71%	99.68%	819846	98.68%	99.69%

4.54 ADS-C performance within the Singapore FIR met the 95 per cent criterion for VHF but did not meet the required criterion for SATCOM and HF. Several RGS/GES stations also failed to achieve the required performance targets, with HF performance remaining below PBCS requirements. Analysis indicated that some delays were likely associated with limited VHF coverage and transitions between VHF and SATCOM in the South China Sea area.

4.55 The Meeting noted that operator-level analysis identified a number of underperforming aircraft operator/type combinations during 2025. In several cases, the results were not considered statistically significant due to low message volumes, while other cases were associated with SATCOM availability, limited VHF coverage, or VHF-SATCOM transition areas. The Meeting further noted that Boeing's findings regarding premature VHF ground station handoff logic could have contributed to some of the observed delays and that planned avionics software updates were expected to improve performance.

4.56 The CPDLC performance by SATCOM and VHF were able to meet the 95% criterion but failed marginally for 99.9% criterion as shown in **Table 26** and **Table 27**.

Table 26: Singapore FIR CPDLC Performance per Media Type (May – June 2025)

FIR	**WSJC**		
Criteria	**RCP240**		
Period	**Jan-Jun 2025**		
Color Key		95% benchmark	99.9% Benchmark

Meets Criteria 99.0% - 99.89% Under Criteria	Message Counts	ACP	ACTP	ACP	ACTP
		% < = 180sec	% <= 120sec	% < = 210sec	% <= 150sec
By Media Type					
SATCOM	14870	98.53%	98.57%	99.03%	99.10%
VHF	28191	99.68%	99.81%	99.74%	99.86%
HF	4				
ALL	47186	99.23%	99.34%	99.46%	99.58%

Table 27: Singapore FIR CPDLC Performance per Media Type (July – December 2025)

FIR	WSJC				
Criteria	RCP240				
Period	Jul-Dec 2025				
Color Key Meets Criteria 99.0% - 99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark	
		ACP	ACTP	ACP	ACTP
		% < =180sec	% <= 120sec	% < = 210sec	% <= 150sec
By Media Type					
SATCOM	14880	98.67%	98.70%	99.20%	99.29%
VHF	27007	99.60%	99.81%	99.67%	99.86%
HF	10				
ALL	46032	99.23%	99.37%	99.47%	99.63%

4.57 CPDLC performance within the Singapore FIR met the 95 per cent criterion for SATCOM and VHF during 2025, although performance marginally missed the 99.9 per cent target. HF usage remained very limited and did not meet PBCS performance requirements. The Meeting noted that operators had been encouraged to utilise SATCOM and VHF in the Singapore FIR.

4.58 Singapore advised that IG1 did not meet the 95 per cent ACP and ACTP criteria and that XXP did not meet the 95 per cent ACTP criterion, while several other stations did not achieve the 99.9 per cent target. Singapore would continue to monitor RGS/GES performance, and it was noted that analysis based solely on communication media type might not effectively identify the root causes of performance issues.

4.59 The Meeting noted that only two aircraft operator/type combinations failed the RCP240 95 per cent criterion during both reporting periods. For APJ/A21N, the performance shortfall was associated with elevated Pilot Operational Response Time (PORT) and delays linked to SATCOM availability, consistent with findings previously reported to Airbus. For RMY/B762, elevated PORT was also observed; however, no investigation was conducted as no PBCS indicator had been filed in the flight plans.

4.60 The Meeting noted that two data link outages had occurred during 2025, both resulting in the temporary suspension of CPDLC and PBCS operations. The first outage, on 17 November 2025,

was attributed to message queuing issues within the ATC Gateway and Global Message Processor interface, while the second outage, on 8 December 2025, was caused by a routing loop resulting from a misconfigured router introduced during an AviNet Airport rollout. In both cases, corrective actions were implemented by Collins, services were restored within a short period, and normal CPDLC and PBCS operations subsequently resumed.

4.61 Boeing clarified that the software updates B777 AIMS BPV18 and BPV19, which addressed VHF ground station handoff logic issues, were applicable only to the B777 and did not apply to the B737 MAX. Boeing advised that, should performance delays involving B737 MAX aircraft continue to be observed within Singapore VHF coverage, a separate CRA problem report should be submitted to enable further investigation, as findings and corrective actions applicable to the B777 could not be assumed to apply to the B737 MAX.

4.62 Secretariat commended Singapore for its comprehensive approach to PBCS monitoring and oversight, including detailed data analysis, timely corrective actions, close coordination with relevant CRA, CSP and SSP, and the submission of problem reports where required. The Secretariat noted that such practices represented a good example of effective PBCS implementation and encouraged other States and Administrations to adopt a similar approach in support of continued performance monitoring and operational improvement.

Data Link Performance Report for Sri Lanka (WP/11)

4.63 Sri Lanka presented the data link performance report for the Colombo FIR from January to December 2025.

4.64 **Table 28** provides the overall ADS-C performance per media type for the Colombo FIR, in 2025. SATCOM and VHF were able to meet the 95% criterion but failed 99.9% criterion, where overall messages met RSP180 95% criterion but marginally fall below the RSP180 99.9% criterion.

Table 28: Colombo FIR ADS-C Performance per Media Type

FIR	VCCF					
Criteria	RSP180					
Period	Jan-June 2025			July-December 2025		
Colour Key: Meets Criteria / 99.0%-99.89% / Under Criteria	Message Counts	95% % <= 90sec	99.90% % <= 180sec	Message Counts	95% % <= 90sec	99.90% % <= 180sec
By Media Type						
SATCOM	428252	98.24%	99.77%	417719	97.96%	99.65%
VHF	113006	99.70%	99.90%	99113	99.68%	99.84%
HF	-	-	-	-	-	-
ALL	541258	98.54%	99.79%	516832	98.29%	99.68%

4.65 **Tables 29** and **30** summarized overall CPDLC performance per Media Type for messages sent within the Colombo FIR during 2024, where performance did not meet the RCP240 performance criteria.

Table 29: Colombo FIR CPDLC Performance per Media Type (January – June 2025)

FIR	VCCF				
Criteria	RCP240				
Period	Jan - Jun 2025				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark	
		ACP % <= 180sec	ACTP % <= 120sec	ACP % <= 210sec	ACTP % <= 150sec
By Media Type					
SATCOM	31028	99.05%	99.11%	99.36%	99.49%
VHF	515	99.81%	100.00%	99.81%	100.00%
HF	-	-	-	-	-
ALL	31543	99.06%	99.13%	99.37%	99.50%

Table 30: Colombo FIR CPDLC Performance per Media Type (July – December 2025)

FIR	VCCF				
Criteria	RCP240				
Period	Jul - Dec 2025				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	5% benchmark		99.9% Benchmark	
		ACP % <= 180sec	ACTP % <= 120sec	ACP % <= 210sec	ACTP % <= 150sec
By Media Type					
SATCOM	34133	99.14%	99.29%	99.45%	99.61%
VHF	466	100.00%	100.00%	100.00%	100.00%
HF	-	-	-	-	-
ALL	34599	99.15%	99.30%	99.45%	99.61%

4.66 Sri Lanka informed the Meeting that CPDLC performance within the Colombo FIR met the 95 per cent criterion for SATCOM and VHF during 2025, although the 99.9 per cent target was not achieved. No HF CPDLC messages were recorded during the reporting period. The Meeting noted that all RGS/GES stations met the 95 per cent criterion, with the exception of IGW1 during the first half of 2025, while several stations did not achieve the 99.9 per cent target. Performance reports had been forwarded to the CAA for further action, and Sri Lanka would continue to closely monitor RGS/GES and CPDLC performance.

4.67 Sri Lanka advised that further analysis of the PBCS performance data for RCP240 and RSP180 was being undertaken and that the results, together with any relevant conclusions, would be provided at a future FIT-Asia meeting.

Asia/Pacific Region Combined PBCS Monitoring Report (WP/12)

4.68 Indonesia and Malaysia presented the aggregated data link performance monitoring report for the Asia/Pacific Region. **Table 31**Table listed the FIRs for which data link performance reports were provided and included in the regional report.

Table 31: 2025 Data Performance – Reporting FIRs

Reporting FIRs		
State	**FIR**	**Location Indicator**
United States	Oakland Oceanic	KZAK
	Anchorage Oceanic	PAZN
Fiji	Nadi*[1]	NFFF
New Zealand	Auckland Oceanic	NZZO
Vietnam	Ho Chi Minh	VVTS
China	Urumqi	ZWWW
	Lanzhou	ZLLL
India	Chennai	VOMF
	Kolkata	VECF
	Mumbai	VABF
Japan	Fukuoka	RJJJ
Malaysia	Kuala Lumpur	WMFC
Sri Lanka	Colombo	VCCF
Indonesia	Ujung Pandang	WAAF
Philippines	Manila	RPHI
Singapore	Singapore	WSJC

4.69 The Meeting was reminded that the performance criteria and the colour codes used by FIT-Asia (shown in **Table** and **Table 33**).

Table 32: Performance Criteria

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

Table 33: Colour Codes

COLOUR KEY
Meet Criteria
99.0% - 99.89%
Under Criteria
No Data

4.70

4.71 **Table** showed the RSP aggregated data of all media types in 2025. The 95% criteria were met in all FIRs. All FIRs are within the marginal range in both halves of 2025 with the sole exception of VABF during the first half of 2025, where performance fell below the required threshold.

Notably, VABF demonstrated improvement in the second half of the year and achieved within 99.0 - 99.8 per cent criterion.

Table 34: RSP Aggregated Data (All Media Types)

REQUIRED SURVEILLANCE PERFORMANCE						
Region	FIT-ASIA					
Performance Criteria	RSP180					
Time Period	2025 January-June			2025 July-December		
Colour Key: Meets Criteria / 99.0%-99.89% / Under Criteria	No. Messages	Criteria 95% % < = 90sec	Criteria 99.90% % <= 180sec	No. Messages	Criteria 95% % < = 90sec	Criteria 99.90% % <= 180sec
Aggregate All RGS						
KZAK	6,977,167	98.92%	99.70%	7,536,130	98.98%	99.69%
NFFF						
NZZO	489,785	98.73%	99.55%	522,067	98.79%	99.68%
PAZN	2,188,453	99.00%	99.68%	2,335,929	99.04%	99.65%
RJJJ	3,335,318	98.65%	99.65%	3,899,879	98.94%	99.72%
RPHI	581,773	98.64%	99.59%	809,819	98.14%	99.17%
VABF	823,094	96.44%	98.96%	840,287	97.73%	99.42%
VCCF	541,258	98.54%	99.79%	516,832	98.29%	99.68%
VECF	524,888	98.48%	99.54%	667,011	98.61%	99.59%
VOMF	299,161	97.63%	99.31%	320,696	98.19%	99.49%
VVTS	275,766	98.49%	99.57%	269,007	98.58%	99.58%
WAAA	300,149	99.10%	99.56%	326,663	99.09%	99.51%
WMFC	463,778	98.40%	99.25%	534,048	98.65%	99.43%
WSJC	777,377	98.71%	99.68%	819,846	98.68%	99.69%
ZLLL	627,895	98.50%	99.50%	623,189	98.50%	99.50%
ZWWW	300,139	98.60%	99.50%	120,242	98.70%	99.50%

4.72 The Meeting was informed that **Figure 3** illustrated the RSP message counts and the corresponding achievement rates for the 95 per cent and 99.90 per cent performance criteria over the period 2021 to 2025, presented by half-year intervals.

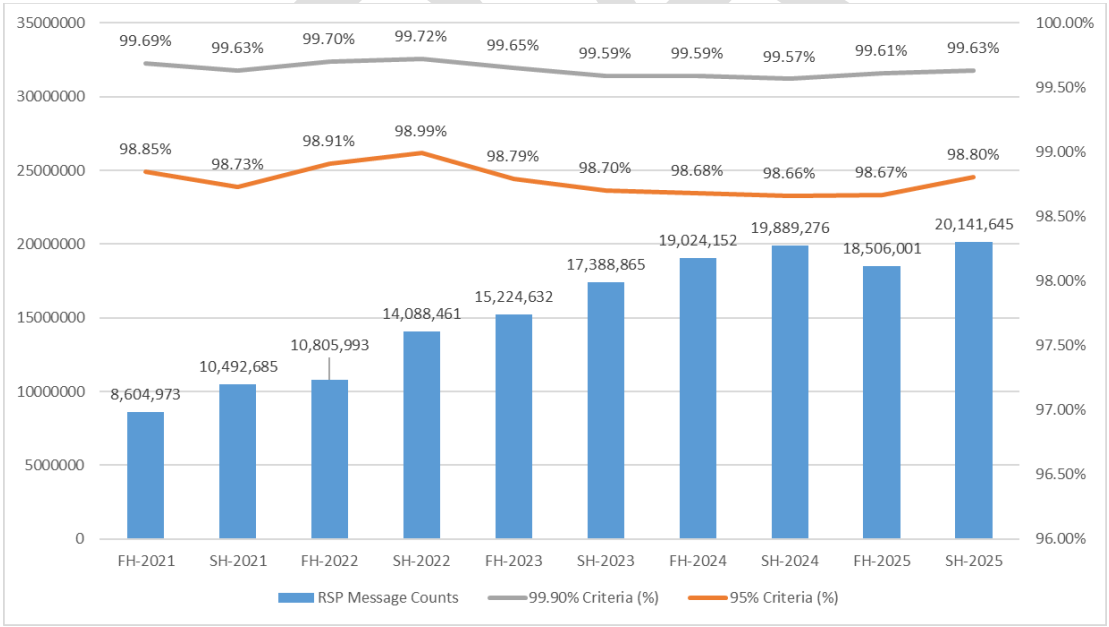

Figure 3: Number of RSP Message Counts and Percentage of Meeting 95% and 99.90% Criteria

4.73 The Meeting noted that the total number of RSP messages in the APAC Region had

increased from approximately 8.6 million in the first half of 2021 to more than 20.1 million in the second half of 2025, while performance against both the 95 per cent and 99.9 per cent criteria had remained consistently high. The Meeting further noted that variations in the number of FIRs submitting RSP data could influence the observed message volumes and performance percentages and, therefore, the trends should be interpreted with caution. Nevertheless, the data provided a useful high-level indication of the stability of regional surveillance performance over the reporting period.

4.74 **Table 35** presents the aggregated Required Communications Performance (RCP240) results for all media types across all FIRs for the year 2025, covering the periods January–June and July–December 2025.

Table 35: RCP Aggregated Data (All Media Types)

REQUIRED COMMUNICATIONS PERFORMANCE										
Region	FIT-ASIA									
Performance Criteria	RCP240									
Time Period	2025 January-June					2025 July - December				
Colour Key: Meets Criteria / 99.0%-99.89% / Under Criteria	No. Messages	ACP Criteria		ACTP Criteria		No. Messages	ACP Criteria		ACTP Criteria	
		95%	99.90%	95%	99.90%		95%	99.90%	95%	99.90%
Aggregate All RGS		% <= 180sec	% <= 210sec	% <= 120sec	% <= 150sec		% <= 180sec	% <= 210sec	% < = 120sec	% <=150sec
KZAK	373,184	99.40%	99.62%	99.56%	99.71%	416,414	99.42%	99.62%	99.68%	99.80%
NFFF	10,382	99.56%	99.75%	99.65%	99.75%	10,921	99.34%	99.54%	99.66%	99.75%
NZZO	90,642	98.99%	99.30%	99.30%	99.48%	94,476	99.25%	99.49%	99.61%	99.73%
PAZN	136,677	99.26%	99.47%	99.64%	99.75%	143,012	99.25%	99.46%	99.60%	99.69%
RJJJ	74,522	99.70%	99.83%	99.72%	99.80%	82,427	99.71%	99.84%	99.73%	99.81%
RPHI	33,354	98.27%	98.52%	98.70%	98.89%	67,227	97.21%	97.52%	98.61%	98.83%
VABF	74,261	99.15%	99.49%	99.38%	99.66%	85,388	99.27%	99.61%	99.46%	99.73%
VCCF	31,543	99.06%	99.37%	99.13%	99.50%	34,599	99.15%	99.45%	99.30%	99.61%
VECF	12,480	99.13%	99.39%	99.20%	99.39%	18,643	99.08%	99.33%	99.07%	99.33%
VOMF	123,190	99.70%	99.85%	99.74%	99.82%	150,456	99.70%	99.86%	99.71%	99.83%
VVTS	68,681	97.98%	98.66%	99.42%	99.72%	53,632	98.08%	98.70%	99.39%	99.66%
WAAA	58,638	99.42%	99.54%	99.78%	99.81%	54,860	99.30%	99.43%	99.80%	99.82%
WMFC	50,019	95.55%	96.30%	99.03%	99.33%	60,895	98.47%	98.84%	99.06%	99.34%
WSJC	47,186	99.23%	99.46%	99.34%	99.58%	46,032	99.23%	99.47%	99.37%	99.63%
ZLLL	1,977	99.44%	99.54%	98.68%	99.29%	1,855	99.08%	99.51%	98.27%	99.13%
ZWWW	8	100.00%	100.00%	100.00%	100.00%	9	100.00%	100.00%	100.00%	100.00%

4.75 The Meeting noted that CPDLC performance across the APAC region remained strong throughout 2025, with all reporting FIRs meeting the 95 per cent ACP and ACTP criteria. Most FIRs also achieved the 99.9 per cent criteria, with only a few exceptions, and overall performance remained stable, including in high-volume FIRs.

4.76 The Meeting noted that **Figures 4** and 5 presented the combined APAC RCP message counts and performance against the ACP and ACTP criteria, respectively, from 2021 to 2025. The figures indicated that regional communications performance had remained consistently high throughout the reporting period, despite increasing message volumes.

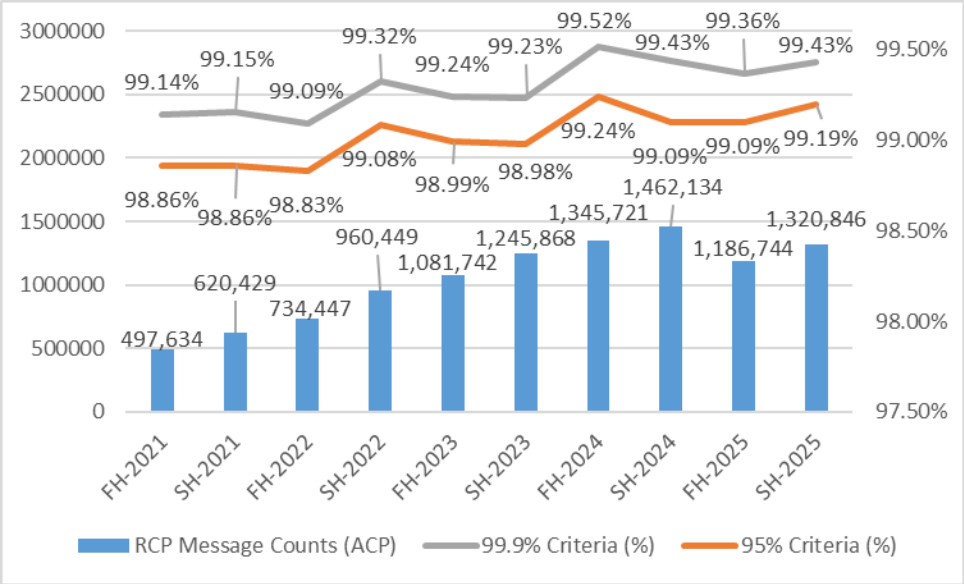

Figure 4: Number of RCP Message Counts, and Percentage Meeting 95% and 99.90% Criteria (ACP)

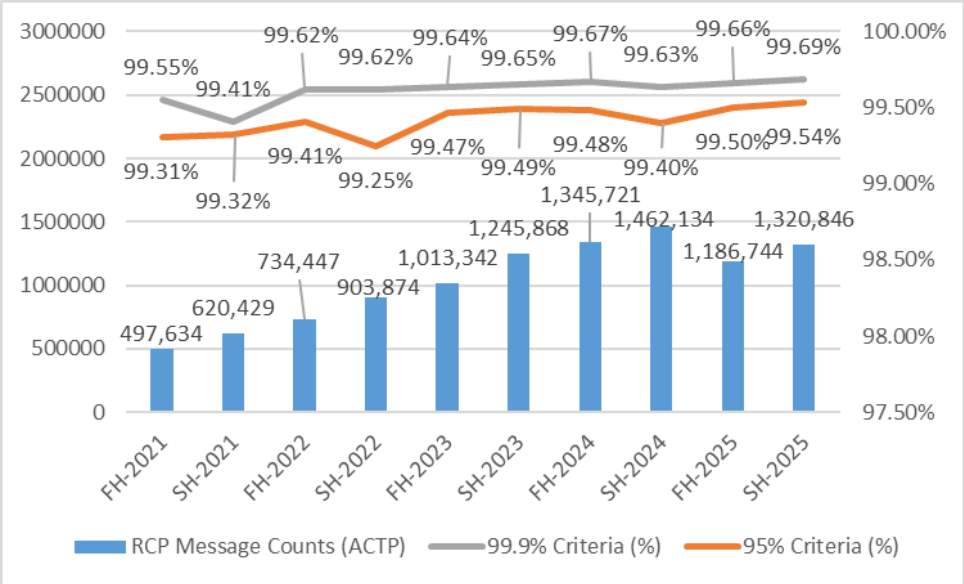

Figure 5: Number of RCP Message Counts, and Percentage Meeting 95% and 99.90% Criteria (ACTP)

4.77 The Meeting noted that ACP and ACTP message volumes in the APAC region had increased steadily from approximately 0.5 million messages in the first half of 2021 to more than 1.3 million messages in the second half of 2025. Despite this growth, compliance with both the 95 per cent and 99.9 per cent ACP and ACTP criteria had remained consistently high throughout the reporting period.

4.78 It was further noted that variations in the number of FIRs contributing RCP data could influence aggregated message volumes and performance percentages. Nevertheless, the results provided a useful high-level indication that strong RCP performance had been maintained across the region despite increasing communication traffic.

4.79 VHF continued to account for the majority of reported RSP issues throughout 2025, while

SAT and HF contributed significantly smaller proportions. The distribution of issues remained largely unchanged between the first and second halves of the year, indicating a stable pattern in the media types associated with RSP performance concerns.

4.80 The Meeting also noted that IG1 and IGW1, the most frequently used RGS/GES communication paths in the APAC Region, generally achieved the 95 per cent RSP180 criterion. Although performance against the 99.9 per cent criterion varied across FIRs, overall performance remained stable during the year, with modest improvements observed on several paths during the second half of 2025. Some localised performance shortfalls nevertheless persisted and would continue to be monitored.

4.81 **Tables 36** and **37** identified aircraft operator and aircraft type combinations that recorded recurring RSP non-compliance across multiple FIRs during 2025. The analysis was limited to combinations exhibiting non-compliance in more than four FIRs in order to focus on regionally significant and recurring performance issues rather than isolated occurrences.

Table 36: Number of FIRs with RSP Issue by Aircraft Operator/Type in the First Half of 2025

Aircraft Operator/Type	FIR Non-Compliance Count
VJT/GL7T	7
AZG/B744	5
FDX/B763	4
FDX/B77L	4
MAS/B38M	4
PAL/A321	4
SIA/B38M	4
TGW/A21N	4

Table 37: Number of FIRs with RSP Issue by Aircraft Operator/Type in the Second Half of 2025

Aircraft Operator/Type	FIR Non-Compliance Count
VJT/GL7T	7
CPJ/GL7T	5
FDX/B77L	5
QQE/GA7C	5
ABD/B744	4
AZG/B744	4
CES/A333	4
HTT/ASTR	4
ICV/B744	4
IGA/GL7T	4
MAS/B38M	4
PAL/A321	4

4.82 The Meeting noted that RCP issues during 2025 were primarily associated with VHF and SAT communications. While VHF accounted for the largest share of issues during the first half of the year, SAT became the predominant contributor in the second half, although the overall distribution between the two media types remained broadly comparable.

4.83 Issues associated with HF, HV, VS and SV media remained relatively low throughout the

year and represented only a small proportion of the total RCP issues reported. Overall, the distribution of issues indicated that VHF and SAT continued to be the principal contributors to RCP performance concerns across the region.

4.84 The Meeting further noted that **Tables 38** and **39** identified aircraft operator and aircraft type combinations that recorded RCP issues in four or more FIRs during the first and second halves of 2025, respectively, highlighting recurring issues with regional significance.

Table 38: Number of FIRs with RCP Issue by Aircraft Operator/Type in the First Half of 2025

Aircraft Operator/Type	FIR Non-Compliance Count
QTR/B77W	5
MAS/B38M	4
CXA/B789	4

Table 39: Number of FIRs with RCP Issue by Aircraft Operator/Type in the Second Half of 2025

Aircraft Operator/Type	FIR Non-Compliance Count
FDX/B77L	6
TGW/A20N	4
QTR/B77W	4

4.85 The Meeting was informed that the details, including PBCS data provided by States/Administrations, could be found in **FIT-Asia/16 WP/12 Attachments A** to **E**.

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

4.87 The Meeting commended Indonesia and Malaysia for its contribution in consolidating and presenting region combined PBCS monitoring report.

4.88 The Chairperson expressed appreciation to Indonesia and Malaysia for their efforts in producing comprehensive reports on RSP180 and RSP240 performance for 2025 and noted the overall high level of regional compliance achieved. The Chairperson further acknowledged the significant contribution made by both States during their two-year term in leading the monitoring and analysis activities. The Secretariat echoed the Chairperson's appreciation and advised that the results would be reported to the forthcoming meeting of RASMAG for further consideration.

4.89 The Meeting noted the willingness of Singapore and the Philippines to undertake the next two-year rotation of FIT-Asia monitoring and analysis activities commencing in 2027. The Chairperson expressed appreciation to both States for volunteering to assume the additional responsibilities and welcomed their collaboration in supporting the work of FIT-Asia.

Satellite Safety Data Link Services (SP/01)

4.90 The Meeting noted Viasat's update on its L-band satellite safety datalink services. Viasat reported that its current L-band satellite network comprised five operational satellites providing near-global coverage, supported by one additional satellite in orbit for contingency purposes. Viasat further advised that three new I-8 satellites were planned for service entry from 2028 to continue supporting

essential L-band satellite safety services and enhance network resilience.

4.91 The Meeting noted Viasat's ongoing initiatives to improve service performance and reduce interruptions. These included enhancements to fault detection and monitoring capabilities through increased automation, improvements to satellite failover mechanisms, implementation of out-of-band solutions to support recovery from isolated ground station failures, migration from legacy equipment to newer hardware platforms, and strengthened operational procedures and escalation processes.

4.92 Viasat provided an update on the Iris programme in Europe. The Meeting noted that the Iris service had been operational since 2024 and that monitored performance met the applicable standards and key performance indicators for CPDLC and ADS-C services. The service was being provided by the European Satellite Services Provider (ESSP), certified by EASA, with 19 European ANSPs participating in pre-commercial operations and four having progressed to the commercial phase.

4.93 Viasat also outlined its roadmap for supporting ATN/IPS and interoperability between ATN/OSI and ATN/IPS environments, including interoperability trials conducted in 2024 and 2025 and a Boeing test flight completed in December 2025. The Meeting further noted the development of gateway capabilities to support seamless transitions between the two environments, as well as the establishment of an Iris test facility in London and a planned facility in Singapore to support testing with ANSPs and airlines.

4.94 During the ensuing discussion, the Meeting sought clarification on the applicability of ATS-B2 services and the distinction between service levels used for CPDLC and ADS-C operations. Viasat explained that ATS-B2 referred to ADS-C Extended Projected Profile (EPP) capability and clarified that the different service levels reflected the respective CPDLC and ADS-C services. The Meeting also noted the usefulness of the satellite network path identifiers presented by Viasat for supporting the investigation of datalink performance issues and encouraged the continued provision of such information at future meetings.

4.95 In response to questions regarding the deployment of the Iris service in Europe, Viasat explained that the programme had been developed to address VHF datalink capacity constraints in the European airspace environment by complementing existing VHF communications with satellite-based datalink services. Viasat further clarified the role of the European Satellite Services Provider (ESSP) as the certified service provider delivering the Iris service to participating ANSPs in Europe.

Intercept unknown agency in SITA Network (IP/05)

4.96 The Meeting noted a reported CPDLC connectivity issue involving an A330-300 aircraft operating a non-scheduled flight from India to a destination in the Middle East on 18 August 2025. The flight traversed the Kolkata and Mumbai FIRs and was equipped with FANS 1/A datalink capabilities. India advised that a review of movement logs, ADS-C reports and CPDLC records had been conducted; however, the aircraft had been unable to establish an ADS-C/CPDLC connection and, consequently, no ADS-C or CPDLC records were available. The aircraft's passage through Indian airspace was nevertheless verified through daily movement reports.

4.97 The Meeting further noted that the issue had been escalated to SITA, which reported that the aircraft/operator had not been configured within its system and was therefore unable to communicate via SITA datalink services. SITA advised coordination with ARINC to facilitate the required configuration. Subsequent investigation confirmed that the operator did not have an agreement with SITA. India later confirmed that datalink operations for the aircraft were functioning normally based on subsequent ADS-C and CPDLC logs.

To Analyse and Improve Datalink Performance in Indian FIRs (IP/06)

4.98 The Meeting noted that India had presented an analysis of abnormal ADS-C message transit times in Indian FIRs, undertaken as part of the regional PBCS monitoring programme. Data extracted from the Chennai, Mumbai and Kolkata FIR automation systems for the period December 2025 to March 2026 indicated that approximately 3 % of ADS-C messages experienced transit times exceeding 90 seconds, with some delays exceeding 3,000 seconds. Such delays could adversely affect datalink performance and the implementation of reduced separation minima within the affected FIRs.

4.99 In response to the request for investigation, SITA advised that its support obligations were limited to investigating specific technical faults and recommended that the Airports Authority of India (AAI) provide a targeted sample of significant delay events for detailed analysis. Following the submission of 25 records, SITA concluded that most delays were attributable to ARINC network issues, transitions between communication media, or multiple media advisories, rather than faults within the SITA network.

4.100 The Meeting also noted observations in the analysis indicating that certain delays appeared to be unrelated to the network under review. In response to a question on possible follow-up actions, it was indicated that further engagement with the relevant service providers could provide additional interpretation and feedback on the identified delays.

Agenda Item 5: Data Link Developments and Guidance Material

Update on the Gold Manual Second Edition and Key Changes from the First Edition (IP/03)

5.1 The Meeting noted the update provided by Japan and Singapore on the development of the second edition of the Global Operational Data Link (GOLD) Manual. It was recalled that the first edition, published in 2017, had primarily focused on FANS 1/A and ATN Baseline 1 (B1) operations and had provided harmonised guidance for ATS data link services, including DLIC, ADS-C and CPDLC. The Meeting further noted that the revision reflected the continued evolution of data link operations and the need to align guidance material with emerging operational and technical requirements.

5.2 The Meeting noted that recent work undertaken by the Operational Data Link Working Group (OPDLWG), together with amendments to ICAO Annexes and PANS-ATM provisions adopted by the ICAO Council, had formed the basis for the revised manual. The second edition was undergoing final technical review by the ICAO Secretariat and OPDLWG, with publication targeted for the fourth quarter of 2026 as part of a coordinated ICAO work programme.

5.3 Japan and Singapore reported that the second edition would significantly expand the scope of the manual through the incorporation of Baseline 2 (B2) capabilities and support for advanced operational concepts, including trajectory-based operations, enhanced clearance delivery and improved air-ground data integration. The revised manual was expected to support performance-based and globally harmonised data link operations and facilitate the transition towards future ATM environments in which data link services would play a more central operational role.

5.4 The Meeting expressed appreciation for the updates provided on recent activities of OPDLWG and noted the importance of such information in identifying emerging issues, future work requirements and potential challenges. The Meeting encouraged States to continue sharing outcomes of relevant international meetings. During the discussion, clarification was sought regarding amendments to ICAO provisions and the latest edition of GOLD Manual, including provisions related to ATS-B2

operations and State implementation considerations. It was explained that the updated guidance reflected recent amendments to ICAO provisions, including requirements related to State publications and operational information. The Meeting further noted that detailed guidance was available through the GOLD Manual, related ICAO documentation and associated State letters.

Secretariat note: Following the meeting, additional information was provided by Japan regarding recent amendments to ICAO provisions relevant to the discussion, including:

a) AN 13/1.1-26/28 Adoption of Amendment 49 to Annex 2

b) AN 7/63.2.6-26/16 Adoption of Amendment 95 to Annex 10, Volume II

c) AN 13/13.1-26/27 Adoption of Amendment 55 to Annex 11

d) AN 13/2.1-26/19 Approval of Amendment 14 to the PANS-ATM (Doc 4444)

Update on the PBCS Manual (Doc 9869 Third Edition) from OPDLWG/12 (IP/04)

5.5 Japan and Singapore presented an update on the development of the third edition of the PBCS Manual (Doc 9869), as discussed at OPDLWG/12. The Meeting noted that the draft third edition had been reviewed and considered sufficiently mature to proceed towards publication following the resolution of comments and completion of the remaining ICAO coordination and endorsement processes. The revised manual retained the overall structure of the second edition whilst significantly expanding guidance related to implementation, compliance, monitoring and operational authorisation.

5.6 The Meeting noted that the third edition introduced new RCP and RSP specifications, including RCP 130 and RSP 160, to support more demanding and time-critical ATM operations. The revised manual also incorporated enhanced monitoring, reporting and data analysis frameworks, including more formalised processes for identifying performance deficiencies and implementing corrective actions. The Meeting further noted revisions to the treatment of CPDLC transactions for performance monitoring purposes, including the expanded use of operational responses such as WILCO, UNABLE and STANDBY within monitoring data sets.

5.7 The Meeting noted that the third edition strengthened safety and compliance provisions through more detailed allocation of responsibilities amongst aircraft operators, ANSPs and CSPs, whilst aligning with other ongoing ICAO initiatives and future data link concepts. The Meeting was advised that OPDLWG/12 had agreed that the draft manual should proceed towards publication and that publication was expected following completion of the relevant ICAO review and endorsement processes.

5.8 In response to questions raised regarding the treatment of ATS-B2 and trajectory-based operations (TBO) in the latest editions of the PBCS and GOLD Manuals, it was noted that ATS-B2 capabilities, including ADS-C Extended Projected Profile (EPP), support the exchange of trajectory information and constitute an important enabler for future TBO concepts. The Meeting further noted the ongoing transition from FANS 1/A-based operations towards ATN-based capabilities and the importance of monitoring developments in next-generation datalink standards and associated guidance material.

5.9 The Meeting expressed appreciation to Japan and Singapore for providing updates from OPDLWG and encouraged the continued sharing of information from relevant ICAO forums. The Meeting also noted discussions on forthcoming changes to PBCS monitoring processes associated with the next edition of the PBCS Manual. It was observed that current monitoring activities for 2026 could continue to be conducted in accordance with the existing manual, while States should anticipate

potential updates to tools and processes following the publication and implementation of the revised guidance material. The Meeting agreed that the matter could be reviewed further at a future FIT-Asia meeting.

Agenda Item 6: Data Link-related ANS Deficiencies

Air Navigation Deficiencies Relating to Data Link Performance Monitoring and Analysis (WP/13)

6.1 The Meeting was reminded of relevant Conclusions from APANPIRG and RASMAG regarding the requirements for States providing data link services to register on the FIT-Asia website (https://www.fans-cra.com/), reporting problems related to ADS-C and CPDLC to the respective CRA, and submitting PBCS performance monitoring data to FIT.

6.2 Currently, not all FIT-Asia Administrations had formal service agreements with APANPIRG-recognized CRAs. **Table 40** illustrated the existing formal CRA service agreements as updated during the Meeting.

Table 40: Current Formal CRA Service Agreements

	APANPIRG-recognized CRA	**Scope of Application**	**Formal Service Agreement**
IPACG and ISPACG (United States)	CRA Boeing	IPACG States, ISPACG States, NAT States	Yes
Japan	CRA Japan	Japan	Yes
SEASMA (Singapore)	CRA Boeing	Singapore, Philippines, Viet Nam	Yes
China	CRA Boeing	China	Yes (2026)
Malaysia	CRA Boeing	Malaysia	In progress (By 2026)
India	CRA Boeing	India	Coordination in progress
Indonesia	CRA Boeing	Indonesia	Coordination in progress
Sri Lanka	CRA Boeing	Sri Lanka	Coordination in progress

6.3 The Secretariat presented the relevant excerpt of the APANPIRG ATM and Airspace Safety Deficiencies List (see **FIT-Asia/16 WP/13 Attachment A**), for review by the Meeting.

6.4 The Meeting was informed that APANPIRG/36 agreed to the following updates to the APANPIRG ATM and Airspace Deficiencies in the Data Link field:

a) India – removed.

6.5 The Meeting agreed that no additional APANPIRG ATM and Airspace Deficiencies in the Data Link field would be proposed for 2026.

6.6 The APANPIRG ATM and Airspace Deficiencies in the Data Link field, as agreed by the Meeting, was provided at **Appendix D** to the Report.

Agenda Item 7: Any Other Business

APAC Project 30/10 Task Force (WP/14)

7.1 The Secretariat provided an update on the APAC Project 30/10 Task Force and its relationship with PBCS. It was recalled that Project 30/10, established following the Fourteenth Air Navigation Conference (AN-Conf/14) and supported by APANPIRG, aimed to facilitate the implementation of reduced longitudinal separation minima in oceanic, remote and other airspace through harmonized regional implementation and coordination with adjacent regions.

7.2 It was noted that the implementation of 30 NM longitudinal separation in oceanic and remote airspace depended on the availability and continued achievement of the communication and surveillance performance requirements specified in ICAO provisions, including RCP 240 and RSP 180 under the PBCS framework. FIT-Asia supported regional implementation through the monitoring and analysis of CPDLC and ADS-C performance, which directly influenced the ability of States and Administrations to implement and sustain performance-based separation minima.

7.3 Communication and surveillance performance were recognized as critical enablers for the implementation of Project 30/10. Persistent performance deficiencies, including the absence of formal service arrangements with communication service providers, could affect implementation and may be considered under the APANPIRG deficiency identification and reporting process. Relevant outcomes of FIT-Asia/16, including identified performance concerns and related issues, would be reported to the First Meeting of the APAC Project 30/10 Task Force, as appropriate.

7.4 FIT-Asia would continue to support Project 30/10 through its existing activities related to PBCS monitoring and analysis and, where appropriate, provide relevant operational and performance information to assist the Task Force in assessing implementation readiness and addressing performance-related issues.

7.5 In the ensuing discussion, clarification was provided that the primary responsibility for implementation planning, readiness monitoring and coordination activities rested with the APAC Project 30/10 Task Force, while FIT-Asia would continue to contribute within its existing terms of reference and maintain coordination with relevant regional bodies.

7.6 The discussion further highlighted that Project 30/10 supported the harmonization of separation minima across oceanic, remote and surveillance airspace environments with the objective of achieving more seamless air traffic management operations. It was also noted that the initiative was supported by relevant ICAO provisions, including Annex 11, PANS-ATM, Doc 7030 and recommendations adopted by AN-Conf/14, and that corresponding provisions would be reflected in the APAC Air Navigation Plan Volume III.

FIT Points of Contact (WP/16)

7.7 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.

Cooperative Service Arrangement Between China and Boeing CRA (IP/07)

7.8 The Meeting noted the paper presented by China and Boeing CRA on the establishment of a cooperative service arrangement between China RMA and Boeing CRA. It was recalled that ICAO Doc 9869 and APANPIRG Conclusion 34/8 emphasized the importance of formal service agreements with the CRA to support PBCS performance monitoring and root cause investigations. The Meeting further noted that China RMA and Boeing CRA had agreed a formal cooperative arrangement in May 2026, which was expected to strengthen the investigation and resolution of performance issues through enhanced coordination, technical expertise and access to operational data.

Agenda Item 8: FIT-Asia Task List

FIT-Asia Terms of Reference and Task List (WP/17)

8.1 The FIT Asia Terms of Reference (TOR, **FIT-Asia/16 WP/17 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 E** 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 May or June 2027, a few weeks before the normal schedule for RASMAG/32.

Closing of the Meeting

9.2 In closing the Meeting, the Chairperson thanked and congratulated the efforts made by the participants for their contributions to the Meeting.

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