



International Civil Aviation Organization
**ICAO Twenty-Eighth Meeting of the Regional Airspace Safety
Monitoring Advisory Group (RASMAG/28)**

Bangkok, Thailand, 21 – 24 August 2023

Agenda Item 2: Review Outcomes of Related Meetings

FIT-ASIA MEETING OUTCOMES

(Presented by the Secretariat)

SUMMARY

This paper presents the outcomes of the Twelfth Meeting of the Future Air Navigation Services (FANS) Interoperability Team-Asia (FIT-Asia/12) for review by RASMAG/28.

1. INTRODUCTION

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.

1.2 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.

1.3 The full report of the meeting is available on the FIT-Asia/13 meeting web-page at: <https://www.icao.int/APAC/Meetings/Pages/2023-FIT-Asia13.aspx>

2. DISCUSSION

FIT-Asia Problem Reports

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

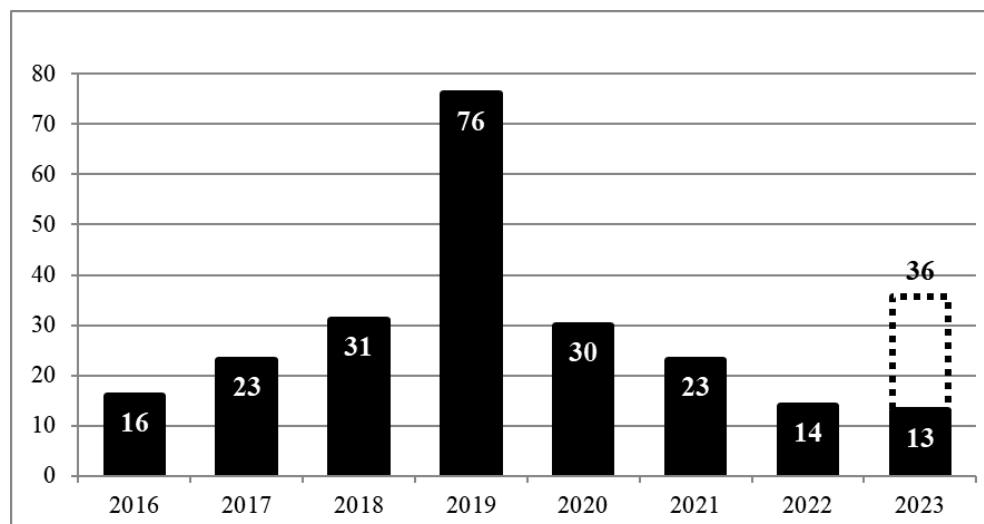


Figure 1: FIT-Asia PR Submissions per Year

2.2 The FIT-Asia 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.

2.3 The CRA informed the FIT-Asia 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.

2.4 The CRA also informed the FIT-Asia 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 FIT-Asia was informed that IPACG and ISPACG had yet to discuss the matter at their meetings. The FIT-Asia agreed to discuss it further at future meetings.

2.5 The FIT-Asia 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.

2.6 This matter is further discussed in paragraphs 2.15 to 2.16 of this working paper.

Regional PBCS Implementation Update

2.7 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 FIT-Asia 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

2.8 The FIT-Asia 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

2.9 **Attachment A** summarized the current implementation of performance-based separations as reported in survey responses since 2017.

2.10 The FIT-Asia 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.

Review of Annual PBCS Survey of the Implementation of Performance-based Horizontal Separation Minima

2.11 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.

2.12 The FIT-Asia 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.

2.13 The FIT-Asia agreed the following Draft Conclusion, for presentation to RASMAG/28.

Draft Conclusion RASMAG/28-X: 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 **Attachment B** be uploaded to the Asia/Pacific Regional Office to replace the existing form.

Competent Airspace Safety Monitoring Organizations List

2.14 The RASMAG List of Competent Airspace Safety Monitoring Organizations (Last updated 25 July 2022) was reviewed and updated by the FIT-Asia.

2.15 The FIT-Asia was informed that ICAO had learned that not all FIT-Asia member administrations had formal service agreements with APANPIRG-recognized CRAs. **Table 1** shows the current formal CRA service agreements in the Asia/Pacific Region.

	APANPIRG-recognized CRA	Scope of application	formal service agreement
IPACG, ISPACG (United States)	CRA Boeing	IPACG States, ISPACG States, and NAT States	Yes
Japan	CRA Japan	Japan	Yes
SEASMA (Singapore)	CRA Boeing	Singapore, Philippines, and Viet Nam	Yes
India	CRA Boeing	India	Yes (Not for 2023)

Table 1: Current formal CRA service agreements

2.16 Subsequent to the FIT-Asia/13 meeting, ICAO reviewed the situation and considered that, given the importance of data link problem reporting in States' performance monitoring obligations under Annex 6 *Operation of Aircraft Part 1*¹ and Annex 11 *Air Traffic Services*², the following Draft Conclusion be considered:

Draft Conclusion RASMAG/28-X: Formal Service Arrangements with CRA

That, States are urged to ensure that formal arrangements are made with an APANPIRG-recognized, competent Central Reporting Agency for the submission and analysis of data link problem reports.

PBCS Global Charter

2.17 The FIT-Asia 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.

2.18 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.

2.19 The FIT-Asia 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

2.20 As of July 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
- Airways New Zealand (ISPACG)
- Japan Air Navigation Service (IPACG)

¹ Annex 6 Part I 7.1.5 and 7.3.4

² Annex 11 2.29 and 3.3.5.2

- NiuSky Pacific Limited (Papua New Guinea/ISPACG)
- FAA (IPACG/ISPACG)

2.21 The FIT-Asia was reminded that 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.

2.22 The FIT-Asia 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.

Datalink FANS IA disruptions due to satellite service outage

2.23 Viasat³ 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.

2.24 The FIT-Asia 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 capability and resilience in that region. (shown in **Figure 2**)

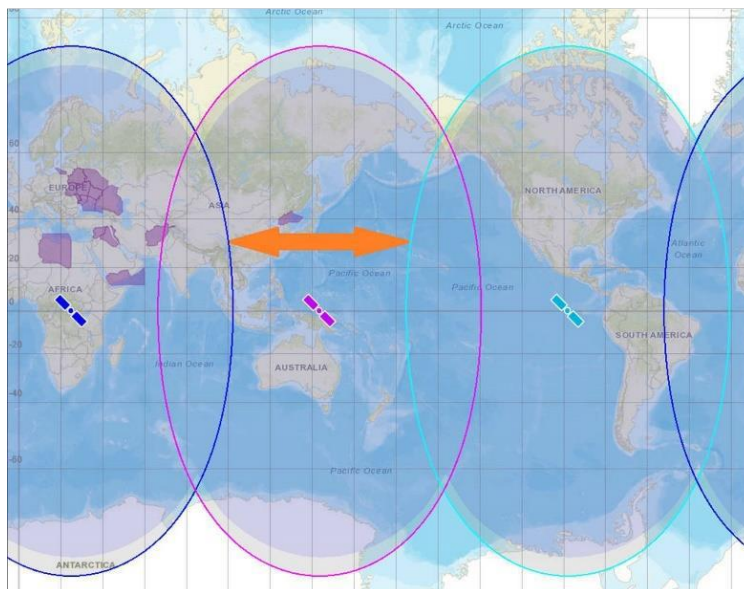


Figure 2: Inmarsat 4F1 coverage area

³ The new company that has acquired Inmarsat.

2.25 In addition, the FIT-Asia 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.

2.26 The FIT-Asia 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.

Asia/Pacific Region Combined PBCS Monitoring Report

2.27 Japan presented the aggregated data link performance monitoring report for the Asia/Pacific Region, prepared by Japan. **Table 2** 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-Minh	VVTS
Indonesia	Ujung Pandang	WAAF
Singapore	Singapore	WSJC
China	Lanzhou	ZLLL
	Urumqi	ZWWW
Malaysia	Kuala Lumpur	WMFC

Table 2: 2022 APAC Combined PBCS Report – Reporting FIRs

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

2.29 Overall ASP for the region had met the 95% criterion (**Table 3**). 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%-99.99% 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 3: Asia/Pacific Region ASP (RSP180)

2.30 Overall ACP for the region met the 95% criterion (Table 4).

ACTUAL COMMUNICATION PERFORMANCE - FIR AGGREGATE (ALL MEDIA TYPES)										
Region	Asia-Pacific Region									
Performance Criteria	RCP240									
Time Period	2022 January-June					2022 July-December				
FIR	Message Counts	ACP Criteria		ACTP Criteria		Message Counts	ACP Criteria		ACTP Criteria	
		95%	99.90%	95%	99.90%		95%	99.90%	95%	99.90%
		% <= 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 4: Asia/Pacific Region ACP (RCP240)

2.31 It was again noted that HF data link (HFDL) performance results did not meet performance requirements in several FIRs. (Table 5)

Performance Criteria		RSP180					
Period		2022 January-June			2022 July-December		
FIR	Media Type	Message Counts	Criteria		Message Counts	Criteria	
			95%	99.90%		95%	99.90%
			% < = 90sec	% < = 180sec		% < = 90sec	% < = 180sec
		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 5: HF Datalink performance in 2022

2.32 The meeting was provided with the combinations of aircraft operators and aircraft types (Table 6) 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	FIR	Aircraft Operator / Type	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
		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%	96.84%	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 6: Combinations of aircraft operators and types confirmed non-compliance of PORT

2.33 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.

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

Data Link Performance Reports

2.35 The meeting was provided with updated information of Data Link Performance Reports by China, India, Indonesia, Malaysia, Philippines, Singapore and Sri Lanka.

Regional Supplementary Procedures Update

2.36 The FIT-Asia was informed of the status of Regional Supplementary Procedures (Doc 7030) supporting performance-based separations in the APAC Region.

2.37 The FIT-Asia 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.

2.38 The FIT-Asia 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**, 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.

Asia/Pacific Region Combined PBCS Monitoring Report

2.39 The FIT-Asia was provided with updated information 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. All Asia/Pacific States that provide data link services had registered on the FANS-CRA website. **Table 7** 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 ⁴
Fiji	0	YES
France (Polynésie Française)	0	YES
India	0	YES ⁵
Indonesia	0	YES ⁶
Japan	3	YES
Malaysia	1	YES ⁷

⁴ Lanzhou and Urumqi FIRs

⁵ Chennai and Kolkata FIRs.

⁶ Ujung Pandang FIR.

⁷ Kuala Lumpur FIR.

State	# PR 2023 (to 28 May)	Performance Analysis Reports to FIT
Myanmar	0	YES
Maldives	0	NO
Papua New Guinea	4	NO
Philippines ⁸	0	YES
New Zealand	4	YES
Singapore	16	YES
Sri Lanka	0	YES
USA	7	YES
Viet Nam	3*	YES

Table 7: Submission of PRs to FANS-CRA and Performance Analysis Reports to FIT

2.40 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.

2.41 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.

2.42 These above recommendations are included in the Deficiencies List provided for RASMAG/28 discussion and agreement in WP/36.

FIT-Asia Task List

2.43 The ninth meeting of FIT-Asia (FIT-Asia/9), held in Bangkok from 1-5 July 2019, discussed on review of Regional Guidance Material for End-to-End Monitoring of Data Link Systems, and agreed to conduct a review of the Guidance Material, with a view to removing any material that may be redundant, or that duplicated material that was available in the GOLD Manual and PBCS Manual, and ensuring that all other contents correctly reflected current regional expectations for data link monitoring and reporting. The review would also take into consideration the formalization of Regional procedures for the reporting of PBCS non-compliance to the relevant Regional Monitoring Agency (RMA) or En-route Monitoring Agency (EMA), and guidance for response to such reports by the State of Registry.

2.44 The task was added into the FIT-Asia task list as below.

9/5	Review and develop Draft of new version of <i>Guidance Material for End-to-End Safety and Performance Monitoring of ATS Data Link Systems in the APAC Region</i> 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
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* Unable to investigate due to lack of necessary information.

2.45 However, as the task required non-FIT-Asia States/Administrations' contribution, the FIT-Asia has yet to complete the task. Therefore, the FIT-Asia is now proposing transferring the task to RASMAG, where all member States/Administrations in the Region are participating.

PBCS analysis and corrective action in NZZO and Japan

2.46 The FIT-Asia 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.

2.47 Airways New Zealand provided the meeting with a set of procedures used for PBCS monitoring and analysis in NZZO, using a monthly monitoring cycle. 5.5

2.48 The FIT-Asia 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.

2.49 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 by Airways New Zealand. A case study on poor datalink performance on cross-polar routes in the Reykjavik FIR was provided by Japan. Those presentations are available at ICAO meeting webpage, <https://www.icao.int/APAC/Meetings/Pages/2023-FIT-Asia13.aspx>.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) urge ANSPs and Aircraft Operators to sign up for the Charter as the most effective means and approach to monitor CSP compliance, which was an essential PBCS component;
- c) note the regional PBCS implementation Status;
- d) note the continued need to encourage States to fully analyze PBCS performance that fails to meet RCP/RSP specifications, take rectification action, and report same to FIT;
- e) note the aggregated regional PBCS performance;
- f) note and agree to the **Draft Conclusion RASMAG/28-X**: Revised Survey of the Status of Current and Planned Implementation of Performance-Based Separation Minima;
- g) note and agree to the **Draft Conclusion RASMAG/28-X** urging FIT-Asia member administrations to establish a formal service agreement with the APANPIRG-recognized CRA;
- h) note the continuing unsuitability of HFDL for PBCS;
- i) note and agree to the FIT-Asia/13 recommendations on data link-related APANPIRG ATM and Airspace Safety Deficiencies;
- j) discuss and agree to the FIT-Asia's task, *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*, to be

transferred to RASMAG; and

k) discuss any relevant matters as appropriate.

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Draft Conclusion RASMAG/28-X: Revised Survey of the Status of Current and Planned Implementation of Performance-Based Separation Minima	
What: That, The revised <i>Survey of the Status of Current and Planned Implementation of Performance-Based Separation Minima</i> at Attachment B to the RASMAG/28 WP/03 be uploaded to the ICAO Asia/Pacific Regional Office website to replace the existing.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: to rationalize and simplify the survey questions.	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 24-Aug-23	Status: Draft to be adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XXXX	

Draft Conclusion RASMAG/28-X: Formal Service Arrangement with CRA	
What: That, States are urged to ensure that formal service arrangements are made with an APANPIRG-recognized, competent Central Reporting Agency for the submission and analysis of data link problem reports.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: To ensure States meet their obligations for data link performance monitoring and analysis in accordance with Annex 6 7.1.5 and 7.3.4, and Annex 11 2.29 and 3.3.5.2.	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 24-Aug-23	Status: Draft to be adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: APANPIRG	