APPENDIX A

STATUS OF PREVIOUSLY IDENTIFIED CHALLENGES FACED AT GLOBAL LEVEL

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
2019-01	Lack of uniform methodology for the identification of deficiencies	Secretariat - Need for the update of the uniform methodology for the identification of deficiencies by PIRGs	2026 CAP 6.2	Pending Pending the availability of resources and prioritization of work programme	Emphasize the need to have an updated and harmonised methodology for assessment across ICAO regions
2019-02	Insufficient progress in civil-military coordination	Secretariat to promote and assist States improving civil-military cooperation and implementation of flexible use of airspace	2027 CAP 6.2	Ongoing	Propose to close – topic under routine agenda of APAC
2019-05	Lack of SAR cooperation and collaboration	APAC and EUR/NAT - Ensure that States are committed to formalize collaboration and cooperation through signed LoAs	2025 CAP APAC 7.8 and CAP EUR 7.8	Ongoing Completed for EUR Work in progress three LoAs signed	Work in progress – signing of SAR LOAs is not specific to APAC, more of a global issue
		APAC and EUR/NAT - Update the EUR SAR plan and assist States in SAR exercises	2025 CAP APAC 7.8 and CAP EUR 7.8	Completed for EUR Ongoing 2022-No SAR exercise due to the pandemic	Completed-APAC SAR Regional plan updated; SAR exercises are conducted in regular basis
2019-08	Lack of PBCS implementation	Secretariat - Robustness of the regional communications infrastructure monitoring system as part of performance-based service provision needed to be further improved	2025 CAP 6.2	Ongoing Work in progress by the PIRGs	Pacific region and Southeast Asia have no issues. Four (4) states in Bay of Bengal Area experiencing difficulties in formalising official CRA agreement

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
		ANC - To identify ways to improve the implementation of PBCS. *"Completing this job card will promote global harmonization and performance-based approach to implementations that use existing and/or emerging technologies to provide enhanced communication and surveillance capabilities, while ensuring the acceptable level of safety."*	2025 CAP 6.2	Ongoing Secretariat is working to amend the following relevant guidance material: - Doc 9613, *Performance-based Navigation (PBN) Manual* with expected publication date of 30 November 2022 (Completed) - Doc 9869, *Performance-based Communication and Surveillance (PBCS) Manual* with expected publication date of 2025	/
2019-10	GNSS RFI	Secretariat – To review frequency protection and interferences matters, conduct awareness activities; symposia/regional navigation workshops	2026 CAP 1.16 CAP 4.1	Ongoing The issue is being dealt with through the following work streams underway: - Doc 9849, *Global Navigation Satellite systems (GNSS) Manual* (updated version planned 2025) - Doc 9718, *Handbook on Radio Frequency Spectrum Requirements for Civil Aviation including Statement of*	VALID throughout APAC Region

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
				Approved ICAO Policies (amendment underway) - Doc 8071, *Manual on Testing of Radio Navigation Aids* (rescheduled for 2024) - Job Card NSP.006.06 & NSP.009.06 - ENB-CNS-2022-11 - Annex 10 – *Aeronautical Telecommunications*, Volume 1 - AN-Conf/14 Recommendation 2.2/2 - SL E 3/5-24/54 dated 30 April 2024 - iPack for mitigation of GNSS RFI is being developed	
		The ANC - To monitor measures related to frequency protection and interferences matters	2026 CAP1.16 CAP 4.1	Ongoing Job Card NSP.006.06 ENB-CNS-2022-11	/
2019-12	RVSM non-approved, non-compliant. Large Height deviations (LHD) and vertical risk	APAC and EUR/NAT - Monitoring of RVSM compliance	2026 CAP 6.2	Completed	/
		States to be urged to address the reported LHDs and to collaborate with the appropriate regional monitoring agencies for necessary corrections measures.	2026 CAP 6.2	Ongoing	Not a challenge in APAC

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
2019-17	Major State safety programme (SSP) implementation difficulties experienced in States	Secretariat to identify ways to address difficulties experienced to support and implement	2026 SAF 2.3	Ongoing: The ANC reviewed the outcomes of a survey conducted by Secretariat on the challenges faced by States for implementation of Annex 19 – *Safety Management* (with a focus on SSP implementation) in its 220th Session (ANWP/9598). The Safety Management Manual (Doc 9859) is being revised to provide additional and updated guidance. The SSP course is available in EN and SP and with a virtual delivery option. (2025) There is also a Safety Risk Management Fundamentals one day course available for virtual delivery. Five safety intelligence and safety performance management workshops were delivered in 2023-2024 across ICAO regions. The SSP iPack is now available for deployment. (2025) The first edition of the new *Safety Intelligence Manual*	RASG to comment
		ANC - To identify ways to address difficulties experienced by States and to report to Council	2026 SAF 2.3		RASG to comment

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
				(Doc 10159) is now available and the online portion of the ICAO Data-driven Decision Making (AD3M) course is being updated to reflect the new guidance. A new course on SMS assessment and monitoring was also launched at the beginning of 2025. (2025) For accident and incident data sharing ICAO has launched an iPack for the Accident/Incident Data Reporting (ADREP) System and transitioned to a new global reporting tool (ECCAIRS 2). Secretariat continues to use the results of the global survey (mentioned above) and feedback from other engagement initiatives with stakeholders to develop additional implementation support activities and strategies to address the identified challenges. Incorporated the challenge 2020-09	

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
2019-19	Harmonized approach to GANP Monitoring mechanism/tool development globally	Secretariat – To ensure State/PIRG participation in development of ICAO GANP Monitoring mechanism/tool	2020 CAP 1.3	Completed GANP web-based format implemented for easy access by States and PIRGs. Web-based format is already available for GANP. The 7th edition of GANP was endorsed by the 41st Assembly.	/
2019-20	Support required for the development of a regional accident and incident investigation organization (RAIO) in the Caribbean	Secretariat – To assist with the development of a regional accident and incident investigation organization (RAIO) or Investigation Cooperation Mechanism (ICM) for States with limited aviation capabilities.	2026 SAF NACC 7.6	Ongoing Work in progress through RASG-PA	RASG to comment
		Secretariat – To request assistance through the AIG Regional Cooperation Mechanism (ARCM) for the South American Region	2026 SAF NACC 7.6	Ongoing Work in progress through RASG-PA	RASG to comment
2020-01	Upgrade of ATS message handling system to support the requirement of the ICAO Meteorological Information Exchange Model (iWXXM), Version 3	APAC and Secretariat – To harmonize the implementation between MET service and telecommunication centres run by ANSP.	2025 CAP 6.2	Ongoing Work in progress through APANPIRG	Enhancing IWXXM-based MET information exchange through expedited network and communication upgrades, including AMHS with FTBP/IHE and redundant backup paths, remains a key priority for APANPIRG/MET SG.

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
					However, a concern from the CNS Secretariat has been shared simultaneously. Upgrading AMHS to meet IWXXM requirements is a temporary solution that requires a significant investment, whereas, as per the description of ASBU COMI-B0/7, AMHS will not be able to support FF-ICE and FIXM data. According to the sunset date of FPL2012 by 2034 and the availability of provisions related to FF-ICE R1 from November 2024, such an investment should not be recommended. it is recommended to expedite SWIM implementation, which would support not only IWXXM but also other data exchange formats, such as AIXM and FIXM
		ANC/Secretariat – To consider. providing more detailed guidance for implementation; and postpone the applicable date of this requirement to November 2021 taking consideration of COVID-19 impacts.	2020 Not in the Business Plan	Completed	/

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
2020-02	States experience a lack of competent inspectors, which implies low levels of critical element 4 (CE-4) implementation	APAC – To assist States with a well-developed training programme with an emphasis on on-the-job training (OJT)	2026 SAF.3.1	Ongoing Work in progress through APANPIRG and RASG-APAC	RASG to comment
		APAC and Secretariat – To address the underlying problem of each region	2026 SAF 4.1	Ongoing Work in progress through APANPIRG and RASG-APAC	RASG to comment
2020-03	Low levels of effective implementation (EI) in all audit areas	APAC – To establish a regional safety oversight organization (RSOO) for Pacific Island States.	2026 SAF 3.2	Ongoing Work in progress through APANPIRG and RASG- APAC	RASG to comment
2020-04	Need for an updated Accident/Incident Data Reporting (ADREP) system	Secretariat – To address the availability of data in the Accident/Incident Data Reporting (ADREP) System	2025 SAF 6.12	Ongoing (2025) ICAO has launched an iPack for the Accident/Incident Data Reporting (ADREP) System and transitioned to a new global reporting tool (ECCAIRS 2). Other work partially implemented with EUROCONTROL.	RASG to comment
2020-05	High rate of missing operational messages (Flight plans, OPMETs, NOTAMs)	AFI and Secretariat – To identify ways to eliminate missing operational messages	2027 Not in the Business Plan	Ongoing As per APIRG, situation has improved. Not a challenge for CAR/SAM.	No longer a challenge in APAC
2020-06	States are not submitting RVSM data to the RMA	PIRGs – To monitor the issue and report through subsequent PIRGs	2025 CAP 6.2	Ongoing PIRGs are following up	No longer a challenge in APAC

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
	Office on a monthly basis	reporting cycles in order to identify additional measures if necessary		Not a challenge for CAR/SAM.	
2020-08	Enhance the use of ICARD regarding the long outstanding resolution of 5LNC duplicates	EUR/NAT and Secretariat – To consider ways to resolve 5LNC duplicates	2026 SAF 6.11	Ongoing IFPP ongoing work on job card IFPP.022.01 – *Enhancement and accuracy of the International Codes and Route Designators (ICARD) system, and resolution of duplicated five-letter name codes 5LNCs*	Ongoing challenge in APAC
2021-01	Actual geographical area of APIRG and RASG-AFI	Secretariat – To develop proposals for consideration by the ANC and Council related to the definition of Africa Indian Ocean Region.	2025 Not in the Business Plan	Ongoing Reference is made to the Council C-DEC 230/2 on the matter. Work in progress with ESAF and WACAF Regional Offices.	Irrelevant to APAC
		Council – to request the Secretary General, to develop proposals to revise the definition of the Africa-Indian Ocean (AFI) Region to be aligned with the actual geographical area of APIRG and RASG-AFI for consideration by the ANC and Council. The proposal should be coordinated with all the relevant stakeholders at the proper time.	2025 Not in the Business Plan		Irrelevant to APAC
2022-01	Lack of compliance with RVSM related requirements and procedures including the	Encourage and facilitate appropriate discussions at high-level civil-military coordination at regional and global forums; issue a State letter;	2025 CAP 6.2	Ongoing Military aspects concerning RVSM approval were	No longer a challenge in APAC

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
	high rate of reported large height deviations (LHD).	develop proposals to address the underlying issues; and develop new Job Cards, as necessary, for consideration by the ANC		incorporated into the Assembly Resolution A41-10. Raising awareness on the matter at regional levels through symposia is ongoing.	
2022-02	Information on the web-based ICAO integrated Safety Trend Analysis and Reporting System (iSTARS)	Update the information for States/administrations and validate the available tools on the iSTARS platform used by States to obtain and share safety data related to the Annual Safety Report, as a matter of urgency	2025 SAF 6.7	Ongoing iSTARS 4.0 has been launched and the issues from the previous version have been resolved. (2025) For accident and incident data sharing ICAO has launched an iPack for the Accident/Incident Data Reporting (ADREP) System and transitioned to a new global reporting tool (ECCAIRS 2). Decision to close this challenge for next report after checking with the regions.	RASG to comment
2023-01	Lack of availability in all ICAO languages the Global Air Navigation Plan (GANP) technical level	Request the Secretariat to identify potential solutions, as the current GANP technical layer in a single language cannot be used.	2027 CAP 1.3	Pending Reference is made to the Council C-DEC 230/2 c) No extra-budgetary resources had been allocated for the	Not a challenge in APAC (English)

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
				translation of the technical part of GANP into all ICAO languages.	
2023-02	Formal amendment process to align the areas of applicability of the air navigation plans and the *Regional Supplementary Procedures* (Doc 7030)	Request the Secretary General to finalize the amendment process to align the areas of applicability of the air navigation plans and the regional supplementary procedures.	2025 CAP 6.2	Ongoing The sixth edition of SUPPs is being processed.	Still a challenge
2024-01	Lack of harmonized regional framework and global guidance material for the management of Contingency Coordination Teams (CCTs) in case of airspace disruption	Secretary General to: 1- Provide the required support for the establishment of regional air traffic management contingency framework to ensure harmonization and effective collaboration between ICAO Regions. 2- Develop, in collaboration with States and industry, global guidance on air traffic management contingency management, including the recovery phase, as well as regional frameworks, to support the implementation of Annex 11 – *Air Traffic Services*. 3- Launch a training programme for building the States capabilities in	CAP 6.8 Q2 2026 Q4 2026 Q4 2025	Ongoing	Still a challenge

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
		preparing, responding and managing contingencies.			
2024-02	Low level of development and implementation of National Aviation Safety Plans (NASPs).	Secretary General to conduct regional capacity-building workshops to support States with the development and implementation of national aviation safety plans (NASPs) based on the regional aviation safety plan (RASP) to improve the level of implementation.	Q4 2026 Regions SAF 7.4	Ongoing	RASG to comment
2024-03	Slow progress in establishing independent aircraft accident investigation authorities and completion of accident investigation reports	Secretary General to: 1- Support States, that have not yet done so, in establishing independent aircraft accident investigation authorities. 2- Conduct regional capacity-building workshops to support States. 3- Assist States in building their accident investigation capacity focusing on the prompt conduct of investigation, completion and making available of investigation reports. 4- Encourage States to join the regional accident and incident investigation organizations (RAIOs), Investigation Cooperation Mechanisms	SAF 3 Q4 2027 Q4 2027 Q4 2027 Q4 2027	Ongoing	RASG to comment

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
		(ICMs), or enter into agreement to delegate the whole or any part of the conducting of such investigation to another State or a RAIO, as practicable, for effective collaboration and sharing of resources.			
2024-04	Low level development of national air navigation plan (NANP)	Secretary General to: 1- Ensure that additional guidance material for ASBU implementation and the template for the NANP are made available for A42. 2- Conduct regional capacity-building workshops to support States with the development and implementation of national air aviation plans (NANPs) based on the regional air navigation plans (ANPs) and the Global Air Navigation Plan (GANP).	Regions/CAP 7.4 Q3 2025 Q4 2027		Genuine challenge in APAC-awaiting global template
2025-01	Ineffective safety reporting due to a lack of sharing inadequate information sharing, accurate and complete weaknesses in data collection and analysis.	Support States in building a strong and positive safety culture and implementing the updated SARPs in Chapter 5 of Annex 19, Amendment 2 (applicable 26 November 2026), complemented by the guidance in the new Safety Intelligence Manual (Doc 10159), including provisions related	Q4 2028	The action taken to address this challenge will support addressing Global Challenge 2019-17 on SSP implementation.	RASG to comment

ID	Challenge	Action	Timeframe Business Plan 2022-2025 Reference	Status Remarks	APANPIRG/36 Update
		to: the establishment of an effective Safety Data Collection and Processing System (SDCPS); means for the governance of safety data and safety information; safety data and safety information analysis; and safety information sharing and exchange.			

— END —

APANPIRG/35 Conclusions/Decisions – Action Plan

Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
C 35/1 **A & B**	**Asia/Pacific Seamless ANS Plan**	That, given the urgency and priority of Air Navigation Service (ANS) planning and modernization, and the lack of progress in implementing the Aviation System Block Upgrade (ASBU) elements, Version 4.0 of the Asia/Pacific Seamless ANS Plan appended as **Appendix A** to the Report on Agenda Item 3.0 be adopted; and uploaded to the Asia/Pacific Regional Office eDocument webpage.	ICAO RO APAC States and Administrations	State Letter Action in accordance with the Conclusion.	February 2025	(Ref.: T 3/10.0, T 3/10.1.17 – AP072/25 (ATM)) dated 29 Aug. 2025 **[Completed]**	To note.
C 35/2 **A & B**	**Regional Guidance for Design and Operations of Altiports**	That, Regional Guidance for Design and Operations of Altiports (**Appendix B** to the Report on Agenda Item 3.1) developed by AP-ADO/TF and endorsed by AOP/SG/8 be forwarded to Air Navigation Bureau.	ICAO RO	IOM to HQ	February 2025	IOM to HQ (Ref.: AN 3/3 – AP-AGA0072/24) dated 23 Dec. 2024 **[Completed]**	To note and request the Secretariat to present the regional guidance material to the Aerodrome Design and Operations Panel (ADOP) for further

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Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
							consideration in the development of global guidance on design and operation of altiports. *(Note. Job card might be required if not covered by the panel approved work programme)* The WG/SRP recommended to the ANC that this draft regional guidance be referred to the

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Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
							Ad Hoc Working Group formed under Aerodrome Design and Operations Panel (ADOP) to develop the global guidance on design and operations of altiports.
C 35/3 **A & B**	**ICAO Asia-Pacific WHM Go-Team Assistance Mission Programme Document**	That, • States with needs to enhance WHM be encouraged and invited to host WHM Go-Team Assistance Mission; and • ICAO Asia/Pacific WHM Go Team Assistance Mission Programme Document provided in **Appendix C** to the Report on Agenda Item 3.1 be included as an Appendix to the	ICAO RO APAC States and Administrations	State Letter Action in accordance with the Conclusion.	February 2025	State Letter Ref.: AN 3/3 – AP153/24 dated 23 Dec. 2024 Published on ICAO APAC eDocuments Webpage.	To note.

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Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		ICAO Asia/Pacific WHM Go-Team Methodology and published on the ICAO APAC Website.				**[Completed]**	
C 35/4 **A & B**	**Agree on the adoption of FIXM Ver. 4.3.0 in Asia/Pacific Region as the standard format**	That, from Q3 2026 FIXM ver. 4.3.0 would be adopted to support information exchange for: 1) FF-ICE/R1 services implementation; 2) Cross-border ATFM operations	ICAO RO APAC States and Administrations	State Letter Action in accordance with the Conclusion.	February 2025	(Ref.: T 3/10.0, T 3/10.1.17 – AP072/25 (ATM)) dated 29 Aug. 2025 **[Completed]**	To note.
C 35/5 **A & B**	**Regional Guidance for Space Object Launch and Re-Entry Coordination**	That, 1) the Asia/Pacific Regional Guidance for Space Object Launch and Re-Entry Activities at appended as **Appendix A** to the Report on Agenda Item 3.2: a. be uploaded to the Asia/Pacific Regional Office website, to replace the existing Asia/Pacific	ICAO RO	State Letter	February 2025	(Ref.: T 3/10.0, T 3/10.1.17 – AP072/25 (ATM)) dated 29 Aug. 2025 **[Completed]**	To note.

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Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Planning Checklist for Ballistic Launch and Space Re-entry; b. be referenced in the Asia/Pacific Seamless ANS Plan; and 2) the related ballistic launch and space re-entry guidance and performance expectations in the Asia/Pacific Seamless ANS Plan be updated accordingly.	APAC States and Administrations	Action in accordance with the Conclusion.			
D 35/6 **A & B**	**Information Management Panel considers the adoption of SWIM Discovery Service as a Global Standard for Globally Interoperable Service Discovery**	To propose to the Information Management Panel (IMP) to consider adopting the SWIM Discovery Service (SDS) as a global standard for globally interoperable service discovery.	ICAO RO	Email/IOM to share information with the IMP Secretary.	February 2025	Email sent to IMP Secretary on 12 December 2024. **[Completed]**	To note and request the Secretariat to share the relevant required documentation from APAC Region with the IMP to consider adopting the SDS as a global standard for globally

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Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
							interoperable service discovery. *(Note. Job card might be required if not covered by the panel approved work programme)* The WG/SRP recommended to the ANC that this item be referred to the IMP to consider adopting SDS as a global standard.
C 35/7	**Preparation for World**	That, States,	ICAO RO	State Letter	February 2025	SL Ref: AN 3/3 –	To note.

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Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A & B	**Radiocommunication Conference - 2027 (WRC-27)**	a) assign high priority to aeronautical spectrum management; b) participate in the development of the ICAO Position for WRC-27; c) participate in the development of States' positions for WRCs at the national level to ensure support for the ICAO Position; d) ensure, to the extent possible, that, aviation representatives are included in States delegations to the APAC Telecommunity (APT) Conference Preparatory Group Meetings and at WRCs; e) to nominate an ICAO designated focal point or contact person for aviation issues related to the WRC-27; and f) ensure participation of the designated focal point or contact person at the ICAO Regional Preparatory Group Meetings for WRC-27, APT Conference Preparatory Group	APAC States and Administrations	Action in accordance with the Conclusion.		AP149/24 (CNS) dated 16 December 2024 on Conclusions adopted by APANPIRG/35 on Spectrum matters **[Completed]**	

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Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Meetings for WRC-27, and at WRC-27.					
C 35/8 **A & B**	**VHF COM Frequency Allotment Plan for APAC Region**	The VHF COM Frequency Allotment Plan for the APAC Region provided in **Appendix A** is adopted.	ICAO RO Sub-Group	State Letter Action in accordance with the Conclusion	February 2025	SL Ref: AN 3/3 – AP149/24 (CNS) dated 16 December 2024 on Conclusions adopted by APANPIRG/35 on Spectrum matters Published on the ICAO APAC e-Docs Webpage. **[Completed]**	To note.

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Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
C 35/9 **A & B**	**Transition from the regular publication of Frequency List 2 to the global database of frequencies included in the Frequency Finder**	Transition from the regular publication of Frequency List 2 to the global database of frequencies included in the FF is adopted	ICAO RO Sub-Group APAC States and Administrations	State Letter Action in accordance with the Conclusion	February 2025	SL Ref: AN 3/3 – AP149/24 (CNS) dated 16 December 2024 on Conclusions adopted by APANPIRG/35 on Spectrum matters **[Completed]**	To note.
C 35/10 **A & B**	**Update of the General Strategy on Assignment of and Migration to SI Code in the APAC Region**	1. The ICAO APAC Regional Office will manage the assignment of II codes 14 and 15 and their matching SI codes like the rest of the II and SI codes. 2. Revised General Strategy on Assignment of and Migration to SI Code provided in **Appendix B** is adopted.	ICAO RO APAC States and Administrations	State Letter Action in accordance with the Conclusion.	February 2025	SL Ref: T 8/5.3 – AP150/24 (CNS) dated 16 December 2024 on Publication of the Twelfth edition of the Catalogue of Asia and Pacific Flight	To note.

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Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
						Inspection and Flight Validation Service Providers and Revised General Strategy on Assignment of and Migration to SI Code in the APAC Region Published on the ICAO APAC e-Docs Webpage. **[Completed]**	
D 35/11 **A & B**	**Additional Secretariat Support**	That, the APANPIRG request ICAO seek additional support for the ICAO RO Met through:	ICAO RO	Revised secondment opportunity	February 2025	MET Secondment initiated: JD	To note.

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Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		a) secondment of an administration resource; b) updating the role location requirements allowing the secondee to work remotely to ICAO APAC Office (i.e. in their home State); and/or c) seeking additional administration support within ICAO.				available in ICAO Website. No application received so far from States. **[Completed]** Notes: Support still needed: MET SG/29 emphasized ongoing gaps in meeting preparation timelines, underscoring the continued need for dedicated MET programme	

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Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
						administrative support.	
C 35/12 **A & B**	**Regulatory and Service Provider Personnel Support for ICAO PSIDS-Focused Activities**	That, noting Pacific Small Island Developing States' (PSIDS') needs for regulatory and technical training, on-the-job training, and appropriately qualified experts to support ICAO-coordinated activities and projects, States are urged to provide: • Regulatory and technical training opportunities in air navigation fields; • On-the-job training opportunities; and • Appropriately qualified personnel for temporary deployments or short-to-medium term secondments; to support PSIDS-focused activities and projects.	ICAO RO APAC States and Administrations	State Letter Action in accordance with the Conclusion.	February 2025	State Letter Ref.: AN 3/3 – AP005/25 dated 10 Jan. 2025 **[Completed]**	To note.

APANPIRG/35 Conclusions/Decisions – Action Plan

Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
C 35/13 **A & B**	**Update of information in APANPIRG Air Navigation Deficiencies Reporting Form**	That, 1) ICAO to update the APANPIRG Air Navigation Deficiency Database to reflect the information as presented in **Appendices A - D** to the to the Report on Agenda Item 4. 2) States/Administrations be urged to: a) establish action plan with defined target dates for resolution of deficiencies, update the status on the corrective action taken and report the progress to the ICAO APAC Office in the Reporting Form of Air Navigation Deficiencies identified in ATM and Airspace Safety, AOP, CNS and MET fields as detailed in **Appendices A to D** to the Report on Agenda Item 4; and b) update contact details of a Focal Point (**Appendix E**) to	ICAO RO APAC States and Administrations	State Letter Action in accordance with the Conclusion.	February 2025	State Letter Ref.: AN 3/3 – AP154/24 dated 23 Dec. 2024 **[Completed]** **Status as of Nov 2025:** ▪ **AOP** – 6 removed and one added ▪ **ATM** – 2 removed. ▪ **RASMAG** – 2 removed.	To note.

APANPIRG/35 Conclusions/Decisions – Action Plan

Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		coordinate actions to resolve the Deficiencies.				**CNS** – NIL (Pakistan requested to remove the deficiency from their side, as no further action can be taken from them. CNS SG/29 requested APANPIRG/36 guidance about its feasibility) **MET** – NIL a) Deficiency assessment initiated: MET SG/29	

APANPIRG/35 Conclusions/Decisions – Action Plan

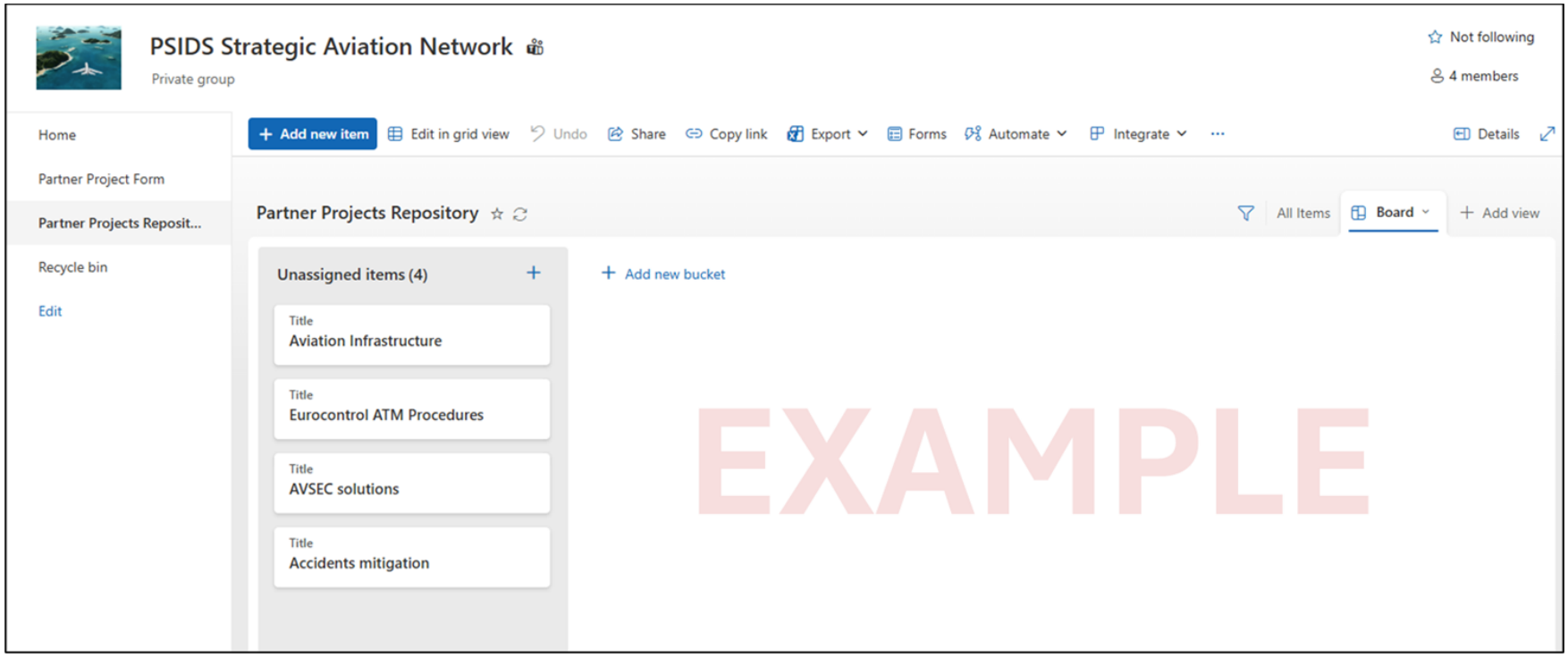
Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
						recommended ICAO assess SIGMET and Advisory Information dissemination issues in IWXXM format across several APAC States. b) Collaborative resolution proposed: MET SG/29 drafted a Conclusion inviting APANPIRG to form a multi-disciplinary group to	

APANPIRG/35 Conclusions/Decisions – Action Plan

Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status [As of 5 Nov. 2025]	Action by ANC [AN-WP/9822 dated 3 May 2025]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
						address persistent air navigation deficiencies.	

— END —

Example of ICAO Portal hosted by ISG to coordinate activities for PSIDS.


PSIDS Strategic Aviation Network
Private group
Not following
4 members
Home
Partner Project Form
Partner Projects Reposit...
Recycle bin
Edit
Add new item
Edit in grid view
Undo
Share
Copy link
Export
Forms
Automate
Integrate
Details
Partner Projects Repository
All Items
Board
Add view
Unassigned items (4)
Add new bucket
Title
Aviation Infrastructure
Title
Eurocontrol ATM Procedures
Title
AVSEC solutions
Title
Accidents mitigation
EXAMPLE

Aerodromes to be listed in Asia Pacific Air Navigation Plan [Updated on 27 June 2025]

S. No	Sub-region	State / Admin	ICAO Code	Name of City	Name of Aerodrome	Type	APAC ANP
1	SA	Afghanistan	OAHR	Herat	Herat Intl	UNK	0
2	SA	Afghanistan	OAMS	Mazar-e-Sharif	Mazar-e-Sharif	UNK	0
3	NA	China	RCYU	Hualien	Hualien	UNK	0
4	NA	China	RCMQ	Taichung	Cingcyuangang	UNK	0
5	NA	China	RCNN	Tainan	Tainan	UNK	0
6	SA	India	VICG	Chandigarh		UNK	0
7	SA	India	VOGO	Goa	Dabolim	UNK	0
8	SA	India	VEGK	Gorakhpur	Mahayogi Gorakhnath	UNK	0
9	SA	India	VIDX	Hindan	Hindon	UNK	0
10	SA	India	VOHY	Hyderabad	Hyderabad International Airport	UNK	0
11	SA	India	VIJO	Jodhpur	Jodhpur	UNK	0
12	SA	India	VEIM		Imphal Airport	UNK	0
13	SA	India	VOGA		Manohar International Airport, MOPA, GOA	UNK	0
14	SA	India	VOPB	Port Blair	Veer Savarkar Intl	UNK	0
15	SA	India	VAPO	Pune	Jagadguru Sant Tukaram Maharaj	UNK	0
16	SA	India	VISR	Srinagar	Srinagar	UNK	0
17	SA	India	VOTP		Tirupati Airport	UNK	0
18	SA	India	VOVZ	Visakhapatan		UNK	0
19	NA	Japan	RJAH	Hyakuri		UNK	0
20	NA	Japan	RJNK	Komatsu		UNK	0
21	NA	Japan	RJOS	Tokushima		UNK	0
22	NA	Japan	RJOH	Yonago	Miho	UNK	0
23	PAC	Micronesia	PTSA	Kosrae I.	Kosrae	UNK	0
24	NA	Mongolia	ZMCD	Dornod	Choibalsan	UNK	0
25	PAC	N. Mariana Is.	PGWT	Tinian I.	West Tinian Tinian Intl	UNK	0
26	PAC	Solomon Islands	AGGM	Munda		UNK	0

S. No	Sub-region	State / Admin	ICAO Code	Name of City	Name of Aerodrome	Type	APAC ANP
27	PAC	Vanuatu	NVVW	Tanna	Tanna	**UNK**	0
28	SEA	Viet Nam	VVDL	Da Lat	Lien Khuong	**UNK**	**0**

Australia: Need to finalize the Table AOP II -1, APAC ANP V-II.

US

(1) Tinian I./West Tinian [PGWT] for N. Mariana Is. should be added in Table AOP I – 1 of APAC ANP V - I and Table AOP II – 1 of APAC ANP V - II.

Aerodromes in APAC Region used for International Operations and yet to be certified

S. No	Sub-region	State / Admin	ICAO Code	Name of City	Name of Aerodrome
1	SA	Afghanistan	OAHR	Herat	Herat Intl
2	SA	Afghanistan	OAKB	Kabul	Kabul Intl
3	SA	Afghanistan	OAKN	Kandahar	Kandahar Intl
4	SA	Afghanistan	OAMS	Mazar-e-Sharif	Mazar-e-Sharif
5	SEA	Brunei	WBSB	Brunei	Brunei Intl
6	NA	China	RCYU	Hualien	Hualien
7	NA	China	RCMQ	Taichung	Cingcyuangang
8	NA	China	RCNN	Tainan	Tainan
9	SA	India	VICG	Chandigarh	Shaheed Bhagat Singh Intl
10	SA	India	VOGO	Goa	Dabolim
11	SA	India	VEGK	GORAKHPUR	Mahayogi Gorakhnath
12	SA	India	VIDX	HINDAN	Hindon
13	SA	India	VIJO	JODHPUR	Jodhpur
14	SA	India	VOPB	Port Blair	Veer Savarkar Intl
15	SA	India	VAPO	Pune	Jagadguru Sant Tukaram Maharaj
16	SA	India	VISR	Srinagar	Srinagar
17	SA	India	VOVZ	VISAKHAPATAN	Visakhapatnam Intl
18	PAC	Kiribati	PLCH	Kiritimati	Christmas I.
19	PAC	Kiribati	NGTA	Tarawa	Bonriki Intl
20	SEA	Lao PDR	VLLB	Luangprabang	Luangprabang Intl
21	SEA	Lao PDR	VLSK	Kaisonphimvihan	Savannakhet Intl
22	SEA	Lao PDR	VLPS	Pakse	Pakse Intl
23	SEA	Malaysia	WMKD	Kuantan	Haji Ahmad Shah
24	PAC	Micronesia	PTPN	Pohnpei I.	Pohnpei Intl
25	PAC	Micronesia	PTKK	Weno I.	FM Chuuk Intl
26	PAC	Micronesia	PTYA	Yap I.	Yap Intl
27	PAC	Micronesia	PTSA	Kosrae I.	Kosrae
28	PAC	Nauru	ANYN	Nauru I.	Nauru intl
~~29~~	~~SEA~~	~~Thailand~~	~~VTSG~~	~~Krabi~~	~~Krabi~~
30	SEA	Timor Leste	WPDB	Suai	Commander-in-Chief of the FALINTIL – Kay Rala Xanana Gusmão Intl

S. No	Sub-region	State / Admin	ICAO Code	Name of City	Name of Aerodrome
31	PAC	Tuvalu	NGFU	Funafuti	Funafuti Intl

Airports with temporary aerodrome certificates

S. No	Sub-region	State / Admin	ICAO Code	Name of City	Name of Aerodrome
1	SEA	Philippines	RPVK	Kalibo, Aklan	Kalibo Intl*
2	SEA	Philippines	RPVP	Puerto Princesa City	Puerto Princesa Intl*
3	SEA	Philippines	RPSP	Panglao	Bohol-Panglao Intl*

* Airports granted with temporary aerodrome certificates

Note:- Krabi airport is deleted from the list as Krabi Airport has been certified by CAAT on 4 July 2025 [APANPIRG/36- WP/14 refers]

Status of RST Establishment based on ICAO RST Survey and State's Response to ICAO APAC SL Ref.: T 11/5.13.2 – AP111/24 (AGA) on 3 September 2024

States	Established	% Established	No info or Not Established	Total
Afghanistan	0	0%	4	4
American Samoa	0	0%	1	1
Australia	4	14%	24	28
Bangladesh	0	0%	3	3
Bhutan	1	50%	1	2
Brunei	0	0%	1	1
Cambodia	0	0%	3	3
China	88	95%	5	93
Cook Islands	0	0%	2	2
DPR Korea	0	0%	2	2
Fiji	1	50%	1	2
French Polynesia	0	0%	1	1
Guam	0	0%	1	1
Hong Kong, China	1	100%	0	1
India	20	47%	23	43
Indonesia	23	70%	10	33
Japan	0	0%	38	38
Kiribati	0	0%	2	2
Lao PDR	0	0%	4	4
Macao, China	1	100%	0	1
Malaysia	18	95%	1	19
Maldives	1	20%	4	5
Marshall Islands	0	0%	1	1
Micronesia	0	0%	4	4
Mongolia	1	33%	2	3
Myanmar	3	100%	0	3
Nauru	0	0%	1	1
Nepal	3	100%	0	3
New Caledonia	0	0%	1	1
New Zealand	3	43%	4	7
Niue	0	0%	1	1
N. Mariana Is.	0	0%	3	3
Pakistan	9	90%	1	10

Palau	0	0%	1	1
Papua New Guinea	0	0%	1	1
Philippines	9	100%	0	9
Rep. of Korea	8	100%	0	8
Samoa	0	0%	2	2
Sinagpore	2	100%	0	2
Solomon Islands	0	0%	2	2
Sri Lanka	1	25%	3	4
Thailand	10	100%	0	10
Timor Leste	0	0%	2	2
Tonga	0	0%	2	2
Tuvalu	0	0%	1	1
Vanuatu	0	0%	3	3
Viet Nam	1	10%	9	10
Wallis et Futuma	0	0%	1	1
Total	**208**	**54.17%**	**176**	**384**

AOP/SG WORK PROGRAMME AND TASK LIST
[Updated by AOP/SG/~~8~~ 9]

The priorities assigned in the list have the following connotation:
High = Tasks of a high priority on which work should be expedited;
Medium = Tasks of medium priority on which work should be under taken as soon as possible but not to the detriment of the High tasks; and
Low = Tasks of medium priority on which work should be undertaken as time and resources permit but not to the detriment of High and Medium priority tasks.

TOR = Terms of Reference of the AOP Sub-Group

Task No.	Ref	Associated ICAO Strategic Objective	Task	Priority	Action Proposed	Action by	Target Date	Status
AOP/SG/1 (14 – 16 June 2017):								
AOP/SG/1/1	APANPIRG 18 Conclusion 18/62 APANPIRG 21 Conclusion 21/54	Safety	AOP Air Navigation Deficiencies Assist States to establish action plans with fixed target dates for resolution of safety related deficiencies	High	1) Monitor resolution of AOP air navigation deficiencies *Please refer to the Task AOP/SG/2/2*	AOP/SG	December 2021	*Moved to Task* AOP/SG/2/2 **[COMPLETED]**
AOP/SG/1/2	APANPIRG 27 TOR of AOP/SG	Safety, Capacity & Efficiency	Assist in and monitor the implementation of Airport Collaborative Decision Making (A-CDM) at aerodromes used for international operations in APAC Region through APA-CDM/TF.	High	Monitor the status of implementation of A-CDM at aerodromes used for international operations	AOP/SG and APA-CDM/TF	Nov. 2021	AOP/SG/5-WP/05: - Dissolution of the Task Force and remaining works will be taken care by other APANPIRG Contributory body (ATFM/SG) **[COMPLETED]**

Task No.	Ref	Associated ICAO Strategic Objective	Task	Priority	Action Proposed	Action by	Target Date	Status
AOP/SG/1/3	APANPIRG 27	Safety	Develop regional guidelines on aerodrome operations personnel competency (AOPC) requirements through AOPC Working Group	Medium	Develop regional guidance material	AOP/SG and AOPC SWG	May 2019	Refer to AOP/SG/4 WP/08 **[COMPLETED]**
AOP/SG/1/4	APANPIRG 27/34	Safety	Monitor States provide updated information about airport´s Obstacle Limitation Surface (OLS) in AIP	High	Monitor OLS of airports through AP-ADO/TF	States, AOP/SG	Continuous	Ongoing
					(Please refer to the Task AOP/SG/2/3)			
AOP/SG/2 (27 - 29 June 2018):								

Task No.	Ref	Associated ICAO Strategic Objective	Task	Priority	Action Proposed	Action by	Target Date	Status
AOP/SG/2/1	APANPIRG/18 Conclusion 18/1 APANPIRG Conclusion 21/2 RAN meeting –Asia/PAC/3, rec 4/6	Safety	Wildlife strike hazard reduction programme	High	Establish Wildlife Hazard Management Working Group (WHM WG)	AOP/SG, ICAO APAC Office AP-WHM/WG	Continuous	Established AP-WHM/WG. **[COMPLETED]** AOP/SG/6 – WP/07: – Draft Conclusion AP–WHM/WG/4–1: State Action Plan for Establishment and Implementation of WHMP - Generic Template (Appendix D to AOP/SG/6 Report) Ongoing
								– Developed Asia Pacific Regional Guidance on Development and Implementation of Wildlife Hazard Management Programme (Appendix E to AOP/SG/6 Report) **[COMPLETED]**

Task No.	Ref	Associated ICAO Strategic Objective	Task	Priority	Action Proposed	Action by	Target Date	Status
AOP/SG/2/2	Beijing Declaration 2018 APANPIRG APAC ANP, Doc 9673, Volume I		1) Assist States in implementation of ICAO aerodrome certification requirement and resolution of air navigation deficiencies;	High	Establish an Asia/Pacific Aerodrome Assistance Working Group (AP-AA WG) Monitor resolution of AOP air navigation deficiencies	AOP/SG; ICAO APAC Office AP-AA/WG	31 October 2018 Continuous	Established AP-AA/WG. **[COMPLETED]** Ongoing
AOP/SG/2/3	TOR of AOP/SG Asia Pacific Air Navigation Plan		(1) Review and monitor provisions of facilities, installations and services at international aerodromes: - visual aids; - rescue and firefighting services and emergency planning; - measurement and reporting by States of the surface condition and unevenness on runway; - preventive maintenance programme; - runway safety programme. (2) Review and monitor the content of the Table AOP I - 1 and, where necessary, after coordination with users and operators, and introduce the respective	High	Establish Asia/Pacific Aerodrome Design and Operation Task Force (AP-ADO/TF) Tasks to be carried out by AP-ADO/TF	AOP/SG; ICAO APAC Office AP-ADO/TF	31 October 2018 Continuous Continuous	Established AP-ADO/TF. **[COMPLETED]** Ongoing Ongoing WP/07 – APAC ANP

Task No.	Ref	Associated ICAO Strategic Objective	Task	Priority	Action Proposed	Action by	Target Date	Status
AOP/SG/3 (24 - 26 June 2019):								
AOP/SG/3/1	55th DGCA Action Item 55/42	Safety	Certification of aerodromes used for international operations by 2020 (Beijing Declaration's Commitment)	High	Monitor the progress of certification and report to DGCA through APANPIRG	AOP/SG through AP-AA/WG	Continuous	Ongoing AOP/SG/9-WP/11: – 353 out of 384 certified – 91.93%
AOP/SG/4 (10 – 13 November 2020):								

Task No.	Ref	Associated ICAO Strategic Objective	Task	Priority	Action Proposed	Action by	Target Date	Status
AOP/SG/4/1	Draft Conclusion AOP/SG/4-10	Safety	States/Administrations to develop and implement GRF Implementation Action Plan	High	Monitor the GRF Implementation Action Plan developed by States/Administrations	States AOP/SG	Continuous	Ongoing AOP/SG/9 – WP/24: GRF – 18 States published procedures for assessment and reporting runway conditions in AIP

Task No.	Ref	Associated ICAO Strategic Objective	Task	Priority	Action Proposed	Action by	Target Date	Status
AOP/SG/4/2	AOP/SG/4 Report on WP/12	Safety	States to arrange necessary resources to recruit, train and retain qualified and experienced technical staff to effectively perform safety oversight of aerodromes to enhance USOAP Effective Implementation score to at least 75% in AGA area by 2024	High	Provide technical assistance to States with limited resources and low AGA EI	States AP-AA/WG	Continuous	Aerodrome Assistance Go-Team Methodology AOP/SG/9-IP/04
AOP/SG/4/3	AOP/SG/4 Report on WP/11	Safety	Assist States in certification of aerodromes used for international operations	High	Provide technical assistance to States with aerodromes yet to be certified through Aerodrome Assistance Go-Team and other appropriate methods as agreed with the States concerned	AP-AA/WG assisted by ACI	~~By 2025~~ Continuous	Aerodrome Assistance Go-Team Methodology Ongoing Under ICAO APAC CAT Mission and COSCAP-Programme
AOP/SG/5 (29 June – 2 July 2021):								
AOP/SG/5/1		Safety, Capacity & Efficiency, ENV	Aerodromes Seminar	Medium	Asia/Pacific Aerodromes Seminar (duration 2 – 3 Days) hosted by States/Industries Theme topic of the Seminar to be proposed by the host in consultation with	States/ Industries (Supported by the Secretariat)	December 2022	Organized Aerodrome Seminar on Airport Master Planning on 29 – 30 June 2023 **[COMPLETED]**

Task No.	Ref	Associated ICAO Strategic Objective	Task	Priority	Action Proposed	Action by	Target Date	Status
AOP/SG/6 (27 – 30 June 2022):								
AOP/SG/6/1	Task AP-ADO/TF/3/2	Safety	GRF Seminar	Medium	Organise a GRF Webinar	On behalf of AP-ADO/TF by China (Lead), ACI & ICAO	Q3, 2022	Organized GRF Webinar on 29 Sep. 2022 **[COMPLETED]**
AOP/SG/7 (3 – 6 July 2023):								
AOP/SG/7/1	Task of AP-ADO/TF/4	Safety	Workshop on Aerodrome Pavement Design and Evaluation including ICAO ACR-PCR Method in Reporting Pavement Strength for Asia and Pacific Regions	High	Organize a Workshop on Aerodrome Pavement Design and Evaluation including ACR-PCR Method in Reporting Pavement Strength for Asia and Pacific Regions	Secretariat with FAA support	Q1, 2024	Three days workshop, tentatively the week of 5-9 February 2024. **[COMPLETED]**
AOP/SG/7/2	AOP/SG/7-WP/12	Safety	Strength assessment and classification for grass and unpaved runway	Medium	Assign the task to AP-ADO/TF	AP-ADO/TF	~~2025~~ 2026	Ongoing
AOP/SG/7/3	AOP/SG/7-WP/12	Safety	WP on UAS operations at existing Airports	Medium	Present a WP to share the experiences of Pakistan on UAS operations at existing Airports	Pakistan	~~AOP/SG/9~~ AOP/SG/10	

Task No.	Ref	Associated ICAO Strategic Objective	Task	Priority	Action Proposed	Action by	Target Date	Status
AOP/SG/8 (15 - 19 July 2024):								
AOP/SG/8/1	Task 5/3 of AP-ADO/TF	Safety	Organize workshops for States and aerodrome operators to share experience in AGA audit area of USOAP CMA especially on alternative means of compliance with AGA related SARPs as advocated for in DGCA/58/DP3/01	High		Pakistan (Lead), Australia, China, India, Secretariat	In conjunction with AOP/SG/9 in July 2025	IP/09 – Maldives IP/12 – Pakistan **[COMPLETED]**
AOP/SG/9 (30 June - 04 July 2025):								
AOP/SG/9/1	Annex 14, Volume I requirement	Safety	Transition from ACN/PCN to ACR/PCR methodology for determination of aerodrome pavement strength	High	Organize workshop on aerodrome pavement design and evaluation incorporating ACR/PCR	ICAO in collaboration with US FAA	February 2026	
AOP/SG/9/2	CNS SG/29 and SWIM TF/10, ATM/SG?12	Capacity and Efficiency	Contribution to the APAC Common SWIM Aeronautical Information services related to AOP field through the APAC Common SWIM Aeronautical Information Services Ad Hoc Group	High	Participate in APAC Common SWIM Aeronautical Information Services Ad Hoc Group Meetings to contribute for finalization of the APAC Common SWIM Aeronautical Information services related to AOP field	India, Japan, Malaysia, Singapore and Thailand	Commence in August 2025 (Ongoing)	

Task No.	Ref	Associated ICAO Strategic Objective	Task	Priority	Action Proposed	Action by	Target Date	Status
AOP/SG/9/3	AP-AA/WG/7	Safety	Workshop on Civil/Military Cooperation in Aerodrome Operations/Certification	High	1) Sharing States Experience, Guidance Materials 2) Organize Workshop	Australia, India (Lead), Malaysia	2026	
AOP/SG/9/4	AOP/SG/9	Safety	Workshop on RODA		Workshop in Conjunction with AP-AA/WG/8 inviting AD Operators, IATA, Airlines, IFALPA (TBC)	AP-AA/WG and Secretariat	AP-AA/WG/8	

****

NOTES ON THE AMENDMENT OF ABOVE TABLE TO ENDORSE AS AOP/SG WORK PROGRAMME

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

~~Text to be deleted is shown with a line through it.~~ text to be deleted

New text to be inserted is highlighted with grey shading. new text to be inserted

~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading. new text to replace existing text

—END—

CORRIGENDUM TO THE ASIA/PACIFIC SEAMLESS ANS PLAN VERSION 4.0

The *Asia/Pacific Seamless ANS Plan* is amended as follows.

The text proposed to be removed has been strike through and the text to be inserted is highlighted in Grey.

i) Paragraph 5.6 Table 1: Asia/Pacific ASBU Block 0, Block 1 and Block 2 Priority

Functional Category	Element	Description	Priority	Responsibility for Review
Technology	~~NAVS-B0/1 to B0/4~~	~~SBAS, GBAS, ABAS, MON (PARS 7.5, 7.7)~~	~~2~~	~~CNS SG~~
	NAVS-B0/1	GBAS (PARS 7.5, 7.7)	2	CNS SG
	NAVS-B0/2	SBAS (PARS 7.5, 7.7)	2	
	NAVS-B0/3	ABAS (PARS 7.7)	1	
	NAVS-B0/4	Nav. MON (PARS 7.7)	1	

ii) Paragraph 5.10

There are ~~18~~20 Priority 1 elements as follows:

a) Aeronautical Meteorology: AMET-B0/1 to B0/4;

b) Aeronautical Information Management: DAIM-B1/1 to B1/6*;

c) Airport CDM: ACDM-B0/1;

d) ANSP human and simulator performance (Regional);

e) ATS Inter-facility Datalink Communications: FICE-B0/1;

f) Space object launches and re-entry management (Regional);

g) Civil-Military SUA management (Regional);

h) Civil-Military strategic and tactical coordination (Regional);

i) Core data communications: COMI-B0/3, B0/7 and B1/1;

j) Direct and Free Route Operations: FRTO-B0/1 to B0/4;

k) Enhanced SAR systems (Regional);

l) Ground-based Surveillance: ASUR-B0/1 to B0/3;

m) Network Operations: NOPS-B0/1 to B0/5;

n) Performance-based Navigation Approach Procedures: APTA-B0/1 and B0/2;

o) Runway Sequencing: RSEQ-B0/1 to B0/2; ~~and~~

p) Safety Nets: SNET-B0/1 to B0/4; and

q) Navigation Systems: NAVS-B0/3 and NAVS-B0/4.

**Note: DAIM-B1/7 is placed within PASL Phase III.*

iii) Paragraph 7.5

Where practicable, all instrument runways serving aeroplanes should have the following approach procedures consistent with **APTA-B0/1** (Priority 1) and **APTA-B0/3**:

a) SBAS/GBAS CAT1 precision approaches (Priority 2); or ILS CAT1 approaches (with APV approach as a backup); or

b) Approaches with Vertical Guidance (APV); RNP APCH with LNAV-VNAV or LPV Minima; or

c) if an APV is not practical, straight-in RNP APCH with Lateral Navigation (LNAV) or SBAS based LPV Minima.

iv) Paragraph 7.7

SBAS, GBAS, ABAS and Nav. MON systems should be established as appropriate to the level and type of aircraft operations and the operating environment consistent with NAVS-B0/1 to B0/4, subject to an assessment of benefits and costs.

Note 1: States should prioritize implementation of regulations and infrastructure for facilitating use of ABAS and establishing a Nav. MON (Priority 1).

Note ~~1~~2: the application of GNSS and its augmentations such as GBAS Landing System (GLS) is recommended where these systems were economically beneficial.

Note ~~2~~3: As far as practicable, airspace and instrument flight procedures associated with international aerodromes should not be constrained by international borders and political barriers, and be established only after appropriate consideration of:

a) environmental efficiencies;

b) noise abatement and local authority regulations;

c) adjacent aerodromes;

d) conflicting instrument flight procedures; and

e) affected ATC units or ATM procedures.

Terms of Reference of Air Traffic Management Sub-Group of APANPIRG (ATM/SG)

The Objectives of the ATM/SG are to:

1) *ensure the continuous and coherent development of the ATM/AIM/SAR parts of the Asia/Pacific Regional Air Navigation Plan (APAC ANP) in a manner that is harmonized with adjacent regions, consistent with ICAO SARPs, the Global Air Navigation Plan and the Global Aviation Safety Plan;*

2) *facilitate the implementation of ATM systems, procedures and services identified in the APAC ANP, Aviation System Block Upgrade (ASBU) priority modules and Asia/Pacific Seamless ~~ATM~~ ANS Plan elements using the project management principles where appropriate;*

3) *review, identify and address deficiencies that impede the implementation or provision of efficient ATM services in the Asia and Pacific Regions.*

Deliverables to meet the Objectives:

1) *Progress report to be **submitted** to APANPIRG addressing the ATM/SG deliverables (listed in 2 to 9 below);*

2) *ATM parts of the ASIA/PAC ANP to be **reviewed** and, as necessary, amendment proposals **prepared** to update the APAC ANP to reflect changes in the operational and global requirements;*

3) *Level of implementation of ATM services to be **monitored** and, as necessary, **facilitated** to support the effective implementation of ASBU priority modules and the Asia/Pacific Seamless ~~ATM~~ ANS Plan elements;*

4) *Air navigation deficiencies in the field of ATM to be **identified** (which may require any necessary systems performance monitoring to be **facilitated**) and, where necessary, appropriate corrective action **proposed** and the development and implementation of action plans by States to resolve identified deficiencies **facilitated**;*

5) *Air navigation deficiencies in the field of ATM (as listed in the APANPIRG database) to be **reviewed** and, as necessary, **updated** to reflect the current situation;*

6) *Research and development, trials and demonstrations in the field of ATM and other relevant areas to be **monitored** and, as necessary, the transfer of this information and expertise between States **facilitated**;*

7) *Specific recommendations to be **made,** and guidance materials **developed,** aimed at improving aeronautical meteorological services by the use of existing and/or new procedures, facilities and technologies;*

8) *Inter-regional and intra-regional co-ordination issues in the field of ATM to be **reviewed** and **identified** and, as necessary, actions **recommended** addressing those issues*;

9) *ATS environmental initiatives are consistently identified and progressed; and report outcomes from ATM environmental initiatives;*

10) *Draft Conclusions and Decisions to be **formulated** relating to matters in the field of ATM that come within the scope of the APANPIRG work plan.*

Terms of Reference

AIR TRAFFIC FLOW MANAGEMENT AND AIRPORT COLLABORATIVE DECISION MAKING STEERING GROUP (ATFM & A-CDM/SG)

1. Having considered relevant documents such as the *Manual on Collaborative Air Traffic Flow Management* (Doc 9971), regional air traffic data and the Asia/Pacific Region city pairs and associated airspace and ATS routes and aerodromes experiencing the most significant traffic demand, and noting the Asia/Pacific Seamless ATM Plan provisions for structural airspace capacity increasing measures, develop an Asia/Pacific Regional ATFM Framework which addresses ATFM implementation and ATFM operational issues in the Asia/Pacific Region;

2. Identify, research and recommend appropriate guidance regarding:

   a. capacity assessment and adjustment mechanisms;

   b. regular review for all aerodromes and ATC sectors where traffic demand is expected to reach capacity, or is resulting in traffic congestion;

   c. mechanisms for ATFM and A-CDM data gathering, collation and sharing between States, International Organizations and ICAO, which may include;

      i. capacity assessments, including factors affecting capacity such as special use airspace status, runway closures and weather information;

      ii. traffic demand information which may include flight schedules, flight plan data, repetitive flight plan data as well as associated surveillance updates of flight status; and

      iii. ATFM Daily Plan;

   d. compliance by airspace and aerodrome users with ATFM and A-CDM measures; and

   e. any other guidance relevant to the Regional ATFM Framework and Asia/Pacific A-CDM Implementation Plan.

3. Maintain an overview of CDM/ATFM and A-CDM programs being conducted within the Region, with a view to facilitating their coordination and alignment, and to promote;

   a. harmonized procedures;

   b. Implementation of the performance expectations of the Regional ATFM Framework and Asia/Pacific A-CDM Implementation Plan;

   c. Interoperability of A-CDM with ATFM

4. Review the effectiveness of existing and planned ATFM and A-CDM programs in the ~~Asia and Pacific~~ Asia/Pacific Region, and make specific recommendations, including any adjacent airspace affecting the ~~Asia and Pacific~~ Asia/Pacific Regions, and research and recommend appropriate mechanisms for the on-going review of such programs.

5. The Group coordinates closely with other relevant bodies such as Airport Operations and Planning Sub-Group, the Meteorological Requirements Working Group (MET/R WG) and System-Wide Information Management Task Force (SWIM TF).

6. The Group reports to the ATM Sub-Group (ATM/SG).

.....

Terms of Reference of the AIS-AIM Implementation Task Force (AAITF)

The objectives of the Task Force are to:

a) study means of aeronautical information management by civil aviation authorities and/or service providers in other regions including globally interoperable aeronautical data, aeronautical information exchange models and digital data sets, and promote the implementation of harmonized and interoperable methods/models in the Asia/Pacific Region;

b) assist States to implement Quality Management Systems for the aeronautical information service in an expeditious manner;

c) assist States to develop competency-based training and conduct workshops on the Asia/Pacific Regional Plan for Collaborative AIM;

d) review and update the Regional Plan for Collaborative AIM taking into account amendments to ICAO SARPs, procedures and guidance material;

e) monitor and review technical and operating developments in the AIS field especially in the area of automation and the exchange of digital data sets of aeronautical information in a SWIM environment; and

f) monitor the transition from AIS to AIM, and in particular monitor developments in Annexes 4 & 15, PANS-AIM (Doc 10066), PANS-Information Management (PANS-IM, Doc 10199 ~~when available~~) and related ICAO guidance documents.

To achieve the above objectives, the Task Force shall consider:

1. results of the ICAO Information Management Panel (IMP);

2. amendments to Annex 4, Annex 15, PANS-AIM, PANS-IM, ~~(when available)~~ the AIS Manual (Doc 8126), the Manual on the Quality Management System for AIS (Doc 9839), the Manual on AIS Training (Doc 9991), the Manual on System-Wide Information Management (SWIM) Implementation (Doc 10203 ~~when available~~) and the Aeronautical Chart Manual (Doc 8697);

3. revisions to the EUROCONTROL *Operating Procedures for AIS Dynamic Data* (OPADD);

4. implementation of the regional priorities and the performance objectives of the Asia/Pacific Seamless ANS Plan and the Regional Plan for Collaborative AIM.

The Task Force will maintain close coordination with other relevant bodies such as the System-Wide Information Management Task Force (SWIM TF).

The Task Force will report to the ATM Sub-Group of APANPIRG.

(Adopted by the 14th Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/14), 2003, and most recently amended by APANPIRG/~~34~~36, November ~~2023~~2025)

2024 Asia Pacific Consolidated Safety Report

Thirtieth Meeting of the Regional Airspace Safety Monitoring Advisory Group

(RASMAG/30)

Bangkok, Thailand

14 – 17 July 2025

Prepared by APAC RMAs and EMAs

Outline

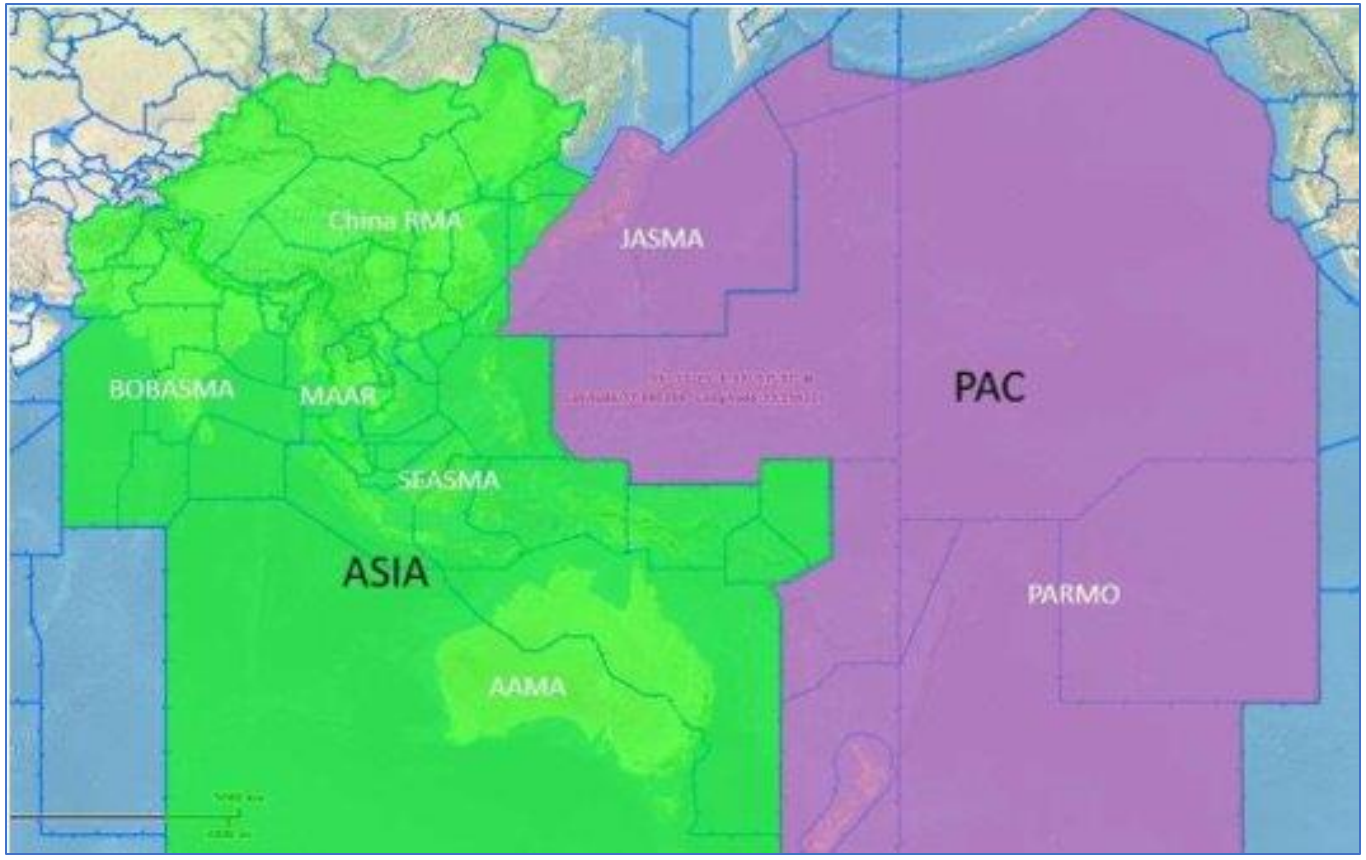
- Background
- PAC Area
  - Vertical Collision Risk Estimates and Summary of LHDs
  - Horizontal Collision Risk Estimates and Summary of LLDs and LLEs
  - Geolocations of LHDs/LLDs/LLEs
  - Hot Spots
- Asia Area
  - Vertical Collision Risk Estimates and Summary of LHDs
  - Horizontal Collision Risk Estimates and Summary of LLDs and LLEs
  - Geolocations of LHDs/LLDs/LLEs
  - Hot Spots
- Reporting Rate of LHDs/LLDs/LLEs
- Conclusion

Background

In 2019 (MAWG/6), APAC monitoring agencies agreed to consolidate key elements from their safety risk analysis into one report to give an overall picture of airspace safety risk in Asia Pacific.

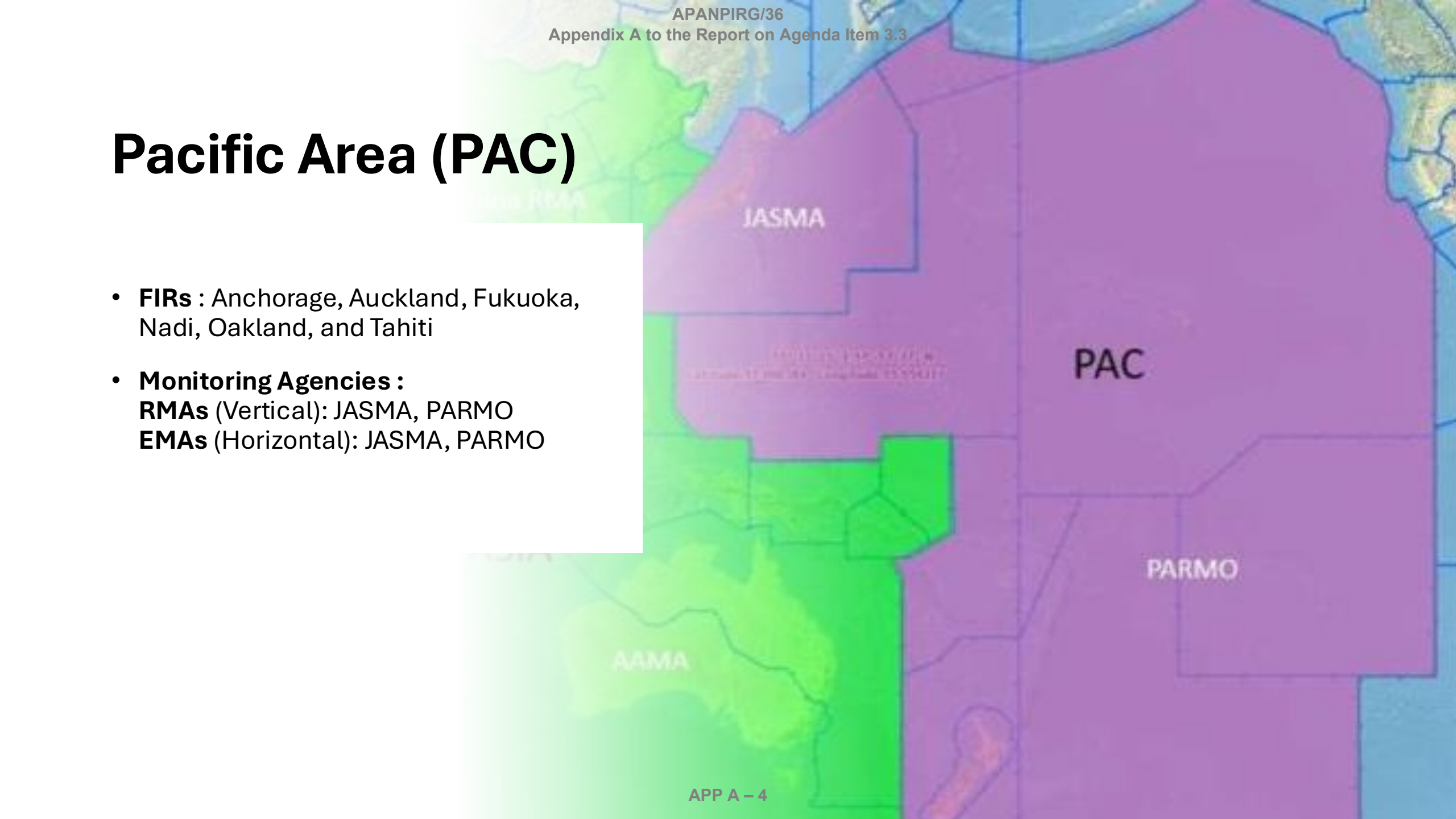
The report is divided into:

- **Pacific (PAC) Area**
- **Asia Area**

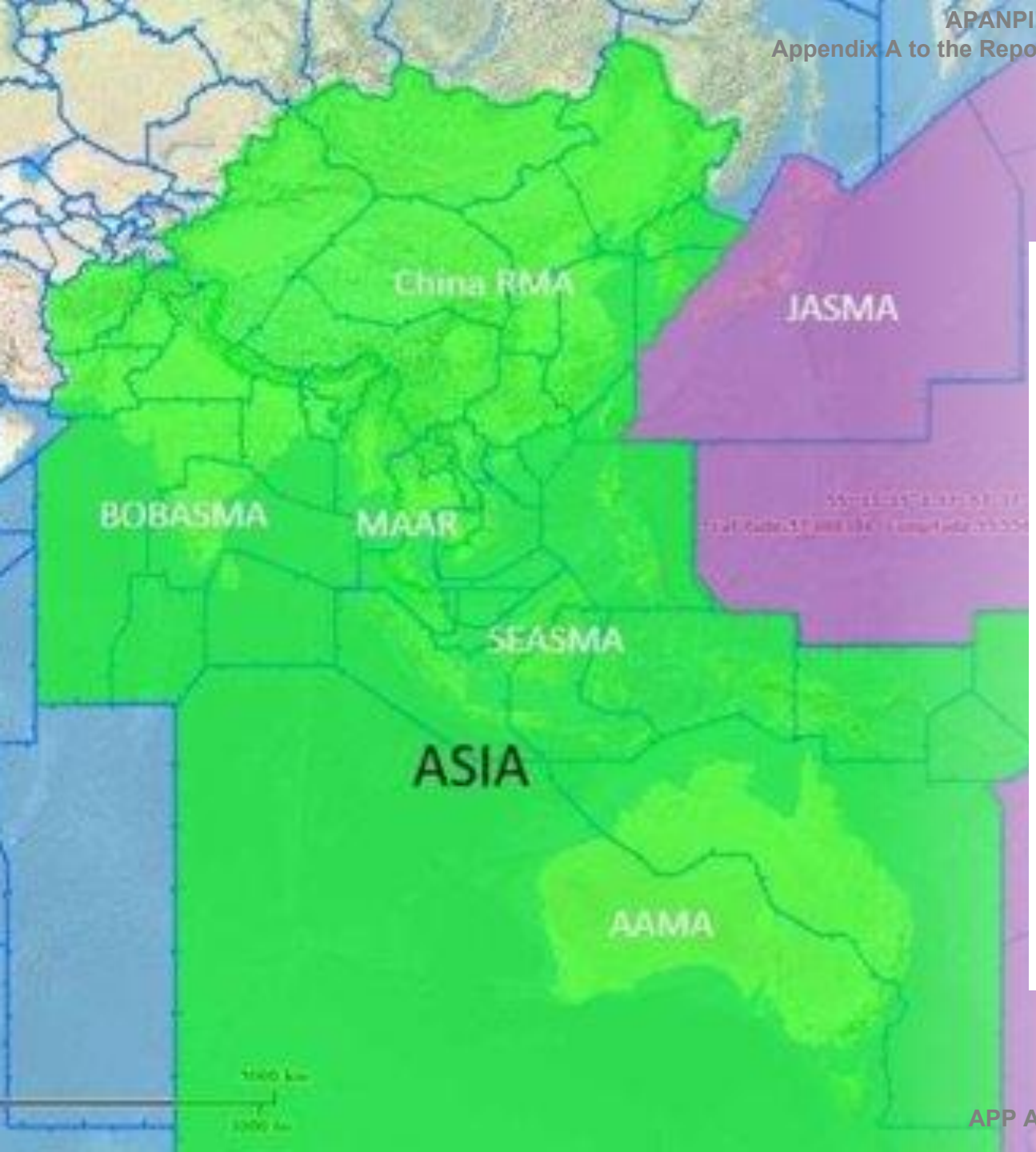


Pacific Area (PAC)

- **FIRs** : Anchorage, Auckland, Fukuoka, Nadi, Oakland, and Tahiti
- **Monitoring Agencies :**
  RMAs (Vertical): JASMA, PARMO
  EMAs (Horizontal): JASMA, PARMO



Asia Area (Asia)



- **FIRs** : Bangkok, Beijing, Brisbane, Chennai, Colombo, Dhaka, Delhi, Guangzhou, Hanoi, Ho Chi Minh, Hong Kong, Honiara, Incheon, Jakarta, Karachi, Kathmandu, Kolkata, Kota Kinabalu, Kuala Lumpur, Kunming, Lahore, Lanzhou, Male, Manila, Melbourne, Mumbai, Nauru, Phnom Penh, Port Moresby, Pyongyang, Sanya, Shanghai, Shenyang, Singapore, Taibei, Ujung Pandang, Ulaanbaatar, Urumqi, Vientiane, Wuhan, and Yangon
- **Monitoring Agencies :**
  RMAs (Vertical): AAMA, China RMA, MAAR, PARMO
  EMAs (Horizontal): BOBASMA, SEASMA

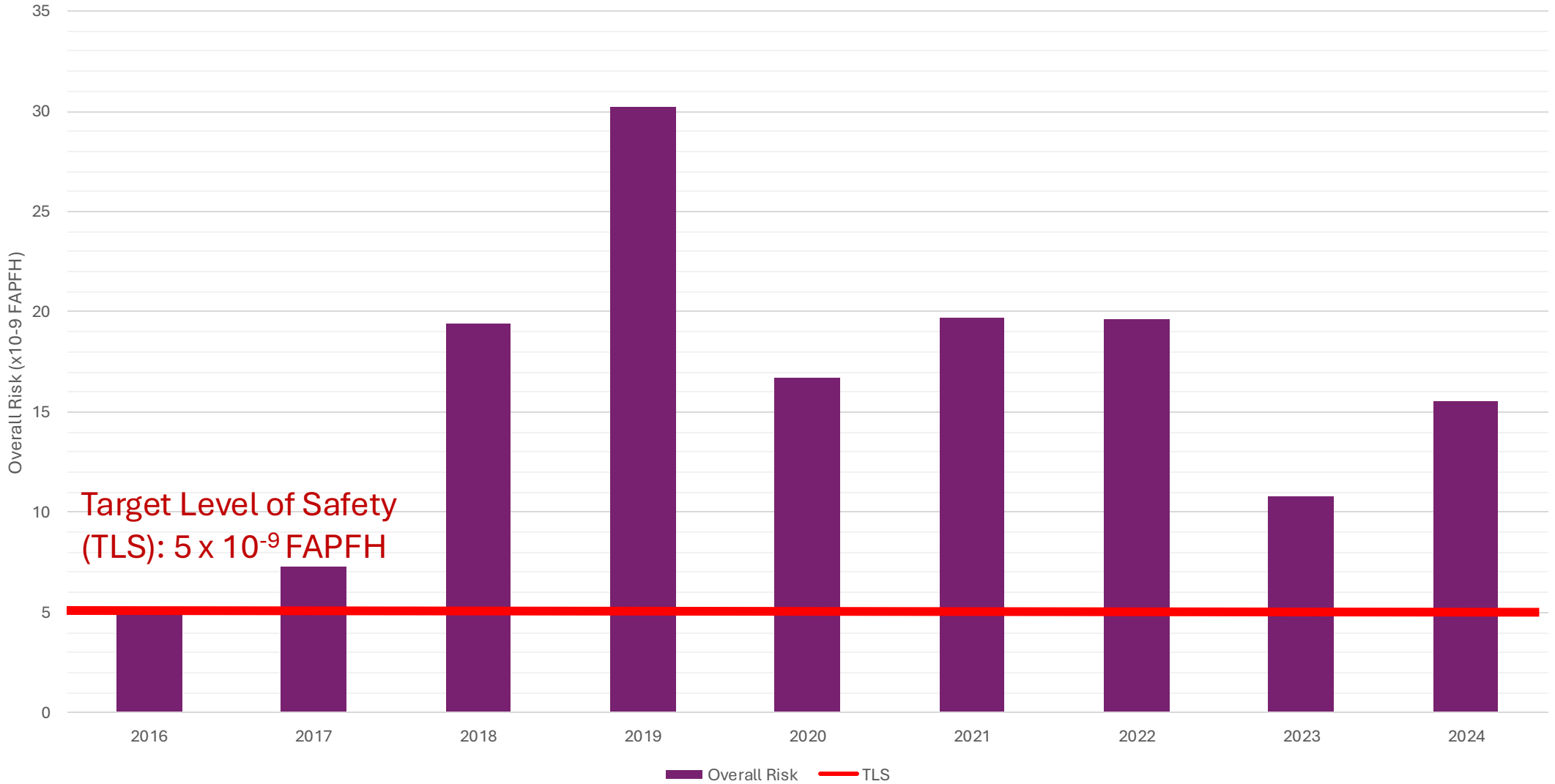
PAC : Vertical Collision Risk

PAC: Vertical Collision Risk Estimates

Annual flying hours: 3,727,882 hours/year

Risk Estimates		Remark
Vertical Technical Risk	0.20×10^{-9} FAPFH	Below Technical TLS
Vertical Operational Risk	15.33×10^{-9} FAPFH	
Vertical Overall Risk	15.53×10^{-9} FAPFH	Above TLS

PAC: Vertical Collision Risk Estimates

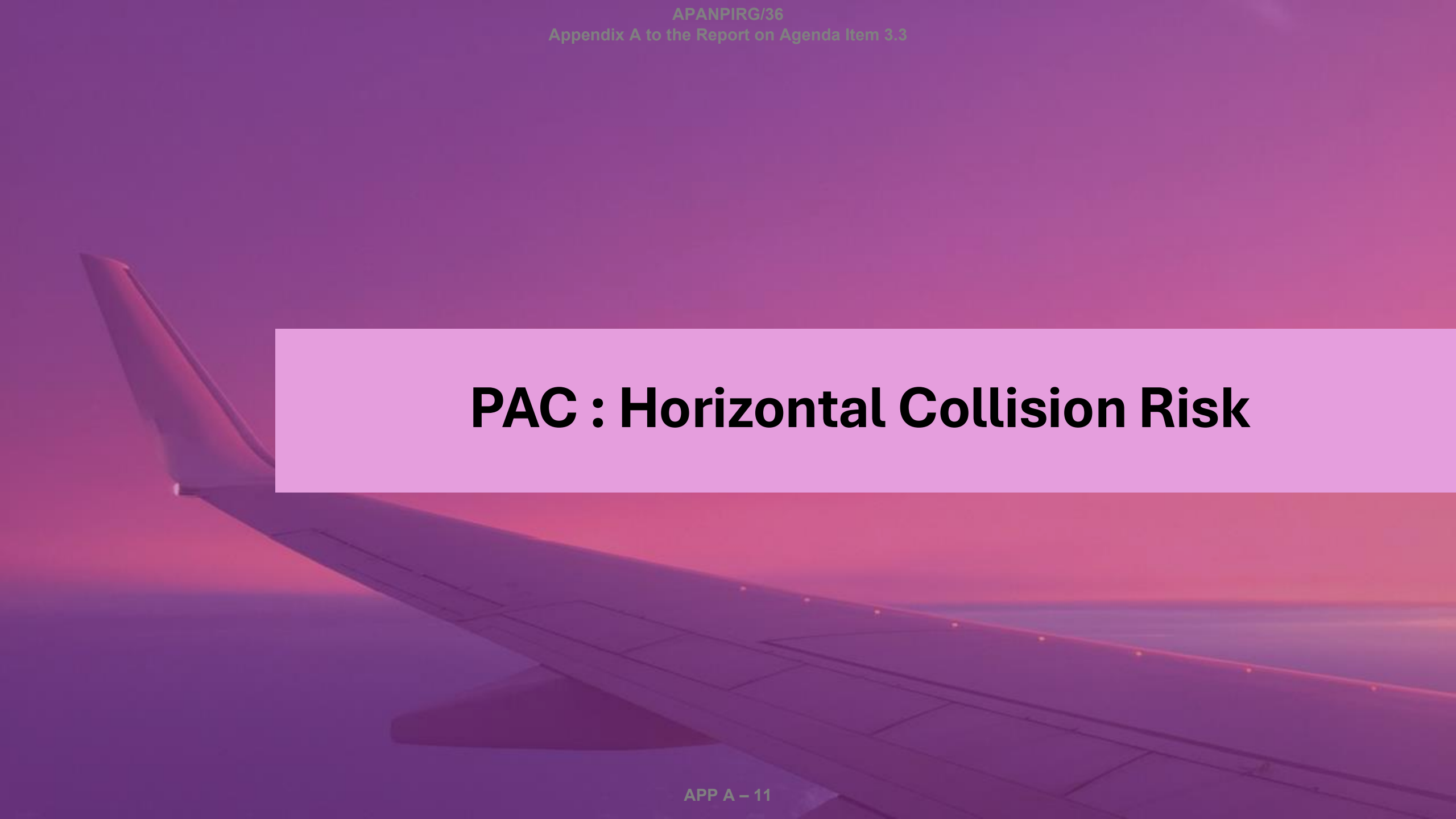


PAC: Summary of LHDs

Attributions	Category Code	Description	Number of Occurrences	Duration (minutes)	Number of Levels Crossed
Aircrew/ Pilot	A	Flight crew failing to climb/descend the aircraft as cleared	7	5	3
	B	Flight crew climbing/descending without ATC Clearance	27	45	31
	C	Incorrect operation or interpretation of airborne equipment	4	352	6
ATC	D	ATC system loop error	6	67	3
	E	Coordination errors in the ATC-to-ATC transfer of control responsibility as a result of human factors issues	55	442	1
	F	Coordination errors in the ATC-to-ATC transfer of control responsibility as a result of equipment outage or technical issues	4	108	0

PAC: Summary of LHDs

Attributions	Category Code	Description	Number of Occurrences	Duration (minutes)	Number of Levels Crossed
Aircraft/ Avionics/ Contingencies	G	Aircraft contingency event leading to sudden inability to maintain assigned flight level	1	28	25
	H	Airborne equipment failure leading to unintentional or undetected change of flight level	1	1	0
Weather/ Turbulence	I	Turbulence or other weather-related causes leading to unintentional or undetected change of flight level	15	48	4
TCAS	J	TCAS resolution advisory, flight crew correctly climb or descend following the resolution advisory	17	23	0
	K	TCAS resolution advisory, flight crew incorrectly climb or descend following the resolution advisory	0	0	0
Other	L	An aircraft being provided with RVSM separation is not RVSM approved	0	0	0
	M	Other	2	0	2
		Total	**139**	**1,119**	**75**



PAC : Horizontal Collision Risk

PAC: Horizontal Collision Risk Estimates

Annual flying hours: 2,069,133 hours/year

2024 Horizontal Risk Estimates		Remark
Total Lateral Risk	1.22×10^{-9} FAPFH	Below TLS
Total Longitudinal Risk	0.014×10^{-9} FAPFH	Below TLS
2023 Horizontal Risk Estimates		**Remark**
Total Lateral Risk	0.24×10^{-9} FAPFH	Below TLS
Total Longitudinal Risk	0.038×10^{-9} FAPFH	Below TLS

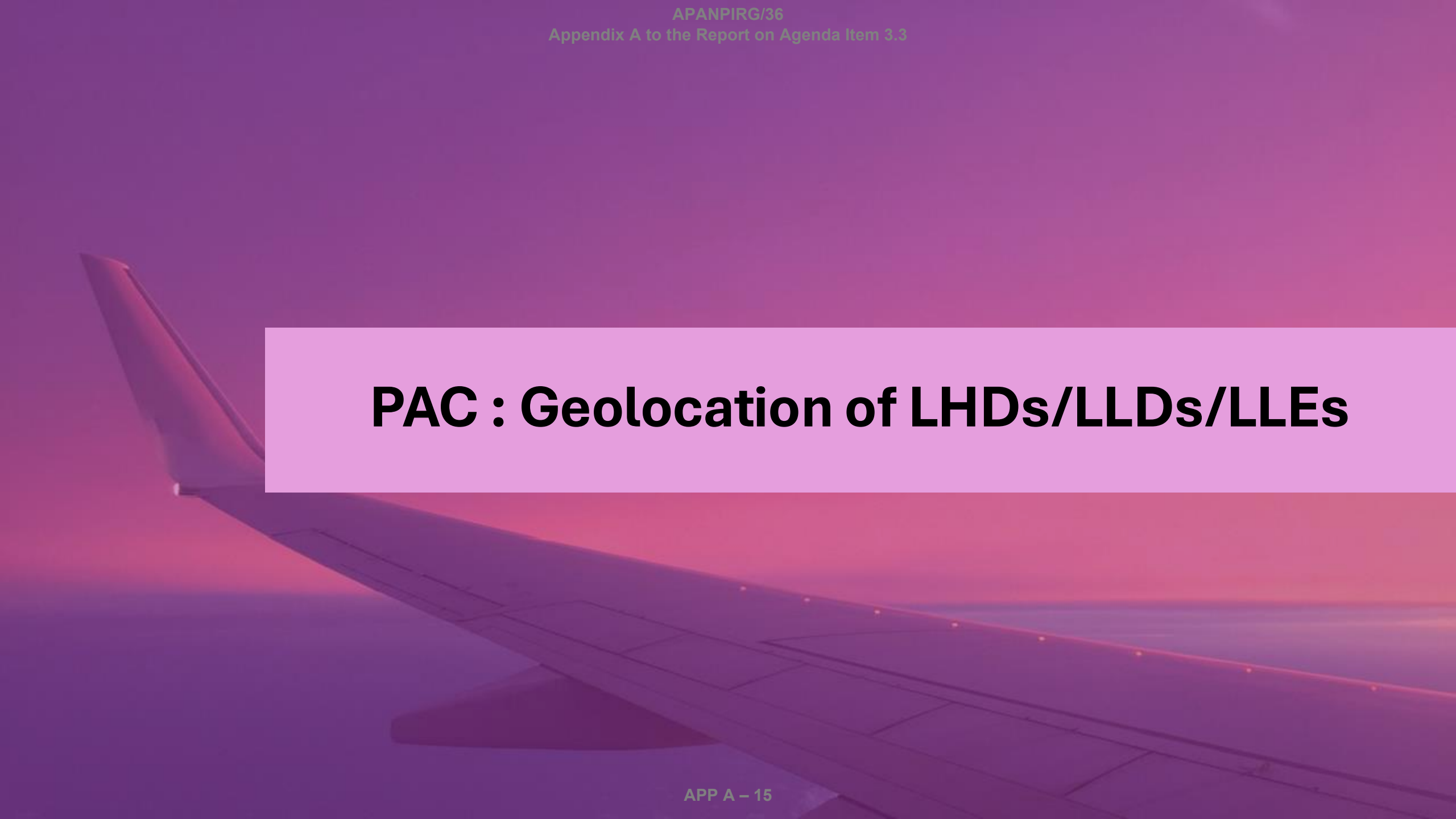
Note: JASMA's longitudinal risk estimates include values based on both the 30 NM and 10-minute separation standards. However, the PAC's total longitudinal risk value is based on the 30 NM separation standard.

PAC: Summary of LLDs and LLEs

Attributions	Category Code	Description	Number of Occurrences	Duration (minutes)	Horizontal Deviation (NM)
Aircrew/ Pilot	A	Flight crew deviate without ATC Clearance	27	69	1100
	B	Incorrect estimate or route provided due to incorrect operation or interpretation of airborne equipment	12	438	93
	C	Flight crew waypoint insertion error, due to correct entry of incorrect position or incorrect entry of correct position	9	162	420
ATC	D	ATC system loop error	5	64	5
	E	Coordination errors in the ATC-to-ATC transfer of control responsibility as a result of human factors issues	107	1176	151
	F	Coordination errors in the ATC-to-ATC transfer of control responsibility as a result of equipment outage or technical issues	2	58	50

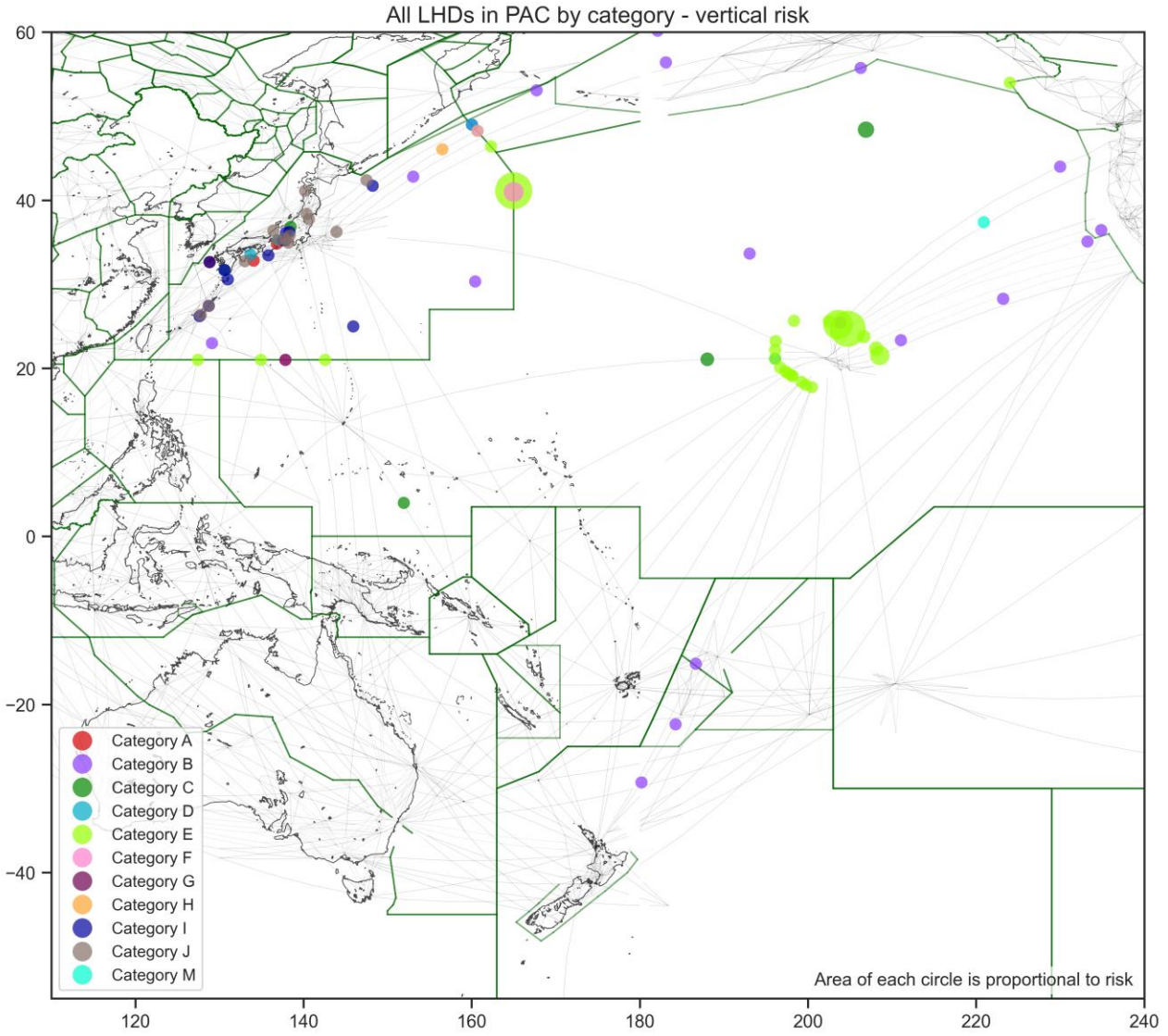
PAC: Summary of LLDs and LLEs

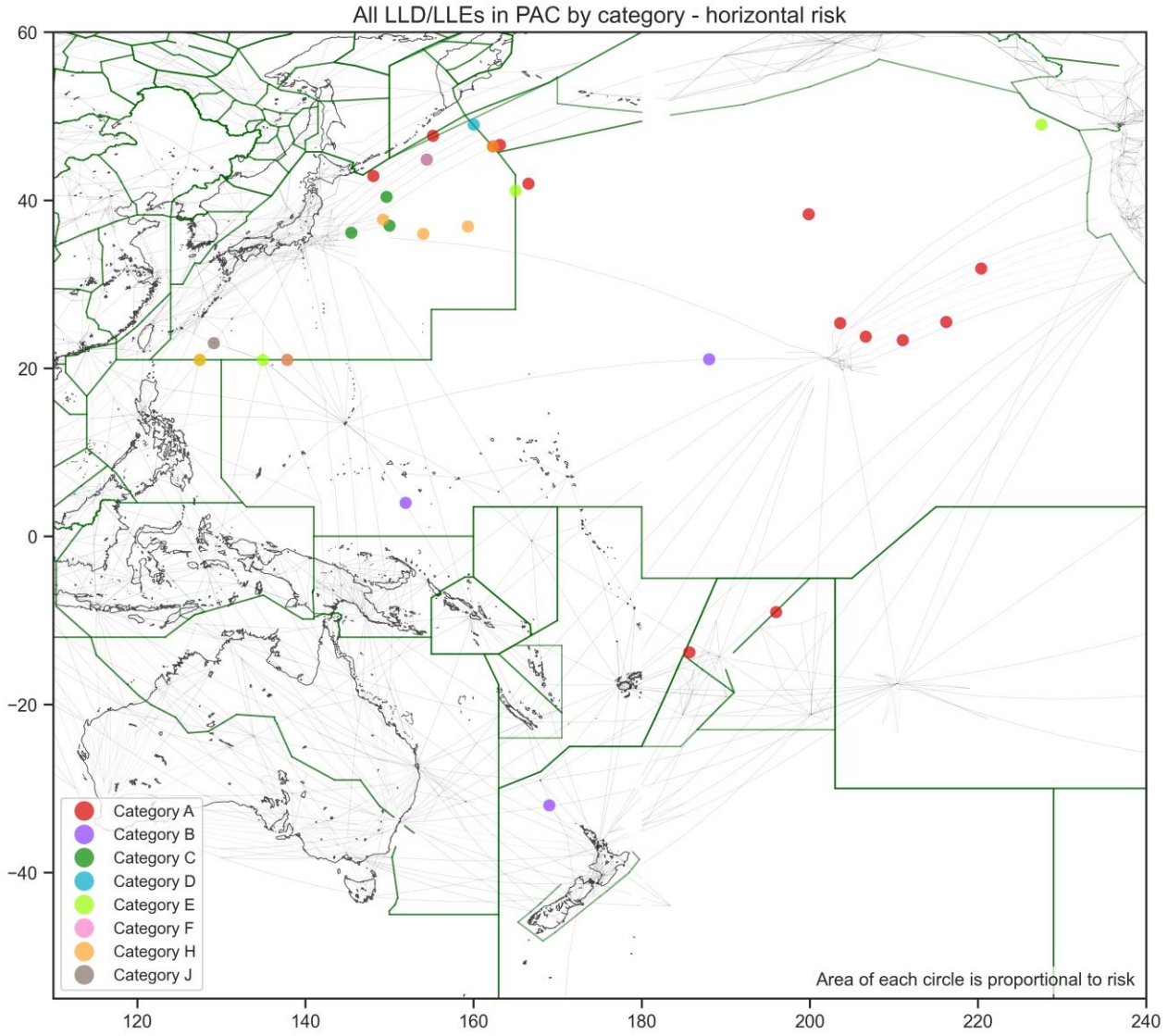
Attributions	Category Code	Description	Number of Occurrences	Duration (minutes)	Horizontal Deviation (NM)
Aircraft/ Avionics/ Contingencies	G	Navigation errors due to airborne equipment failure	0	0	0
Weather/ Turbulence	H	Turbulence or other weather-related causes leading to a deviation in the horizontal dimension	8	106	166
Other	I	An aircraft was provided with reduced horizontal separation minima but did not meet the RNP/RSP/RCP specification;	0	0	0
	J	Other	1	12	30
		Total	**171**	**2085**	**2015**



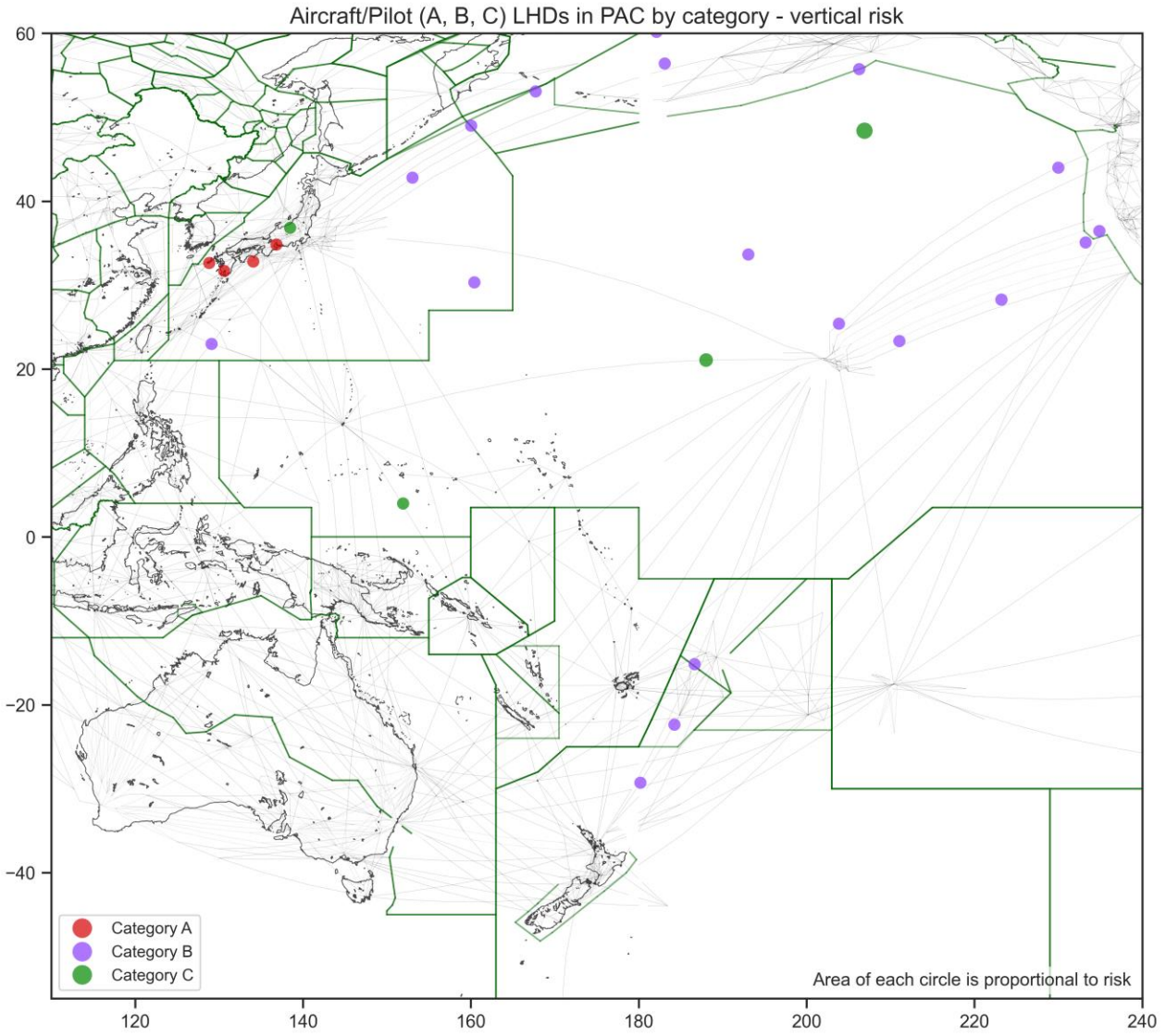
PAC : Geolocation of LHDs/LLDs/LLEs

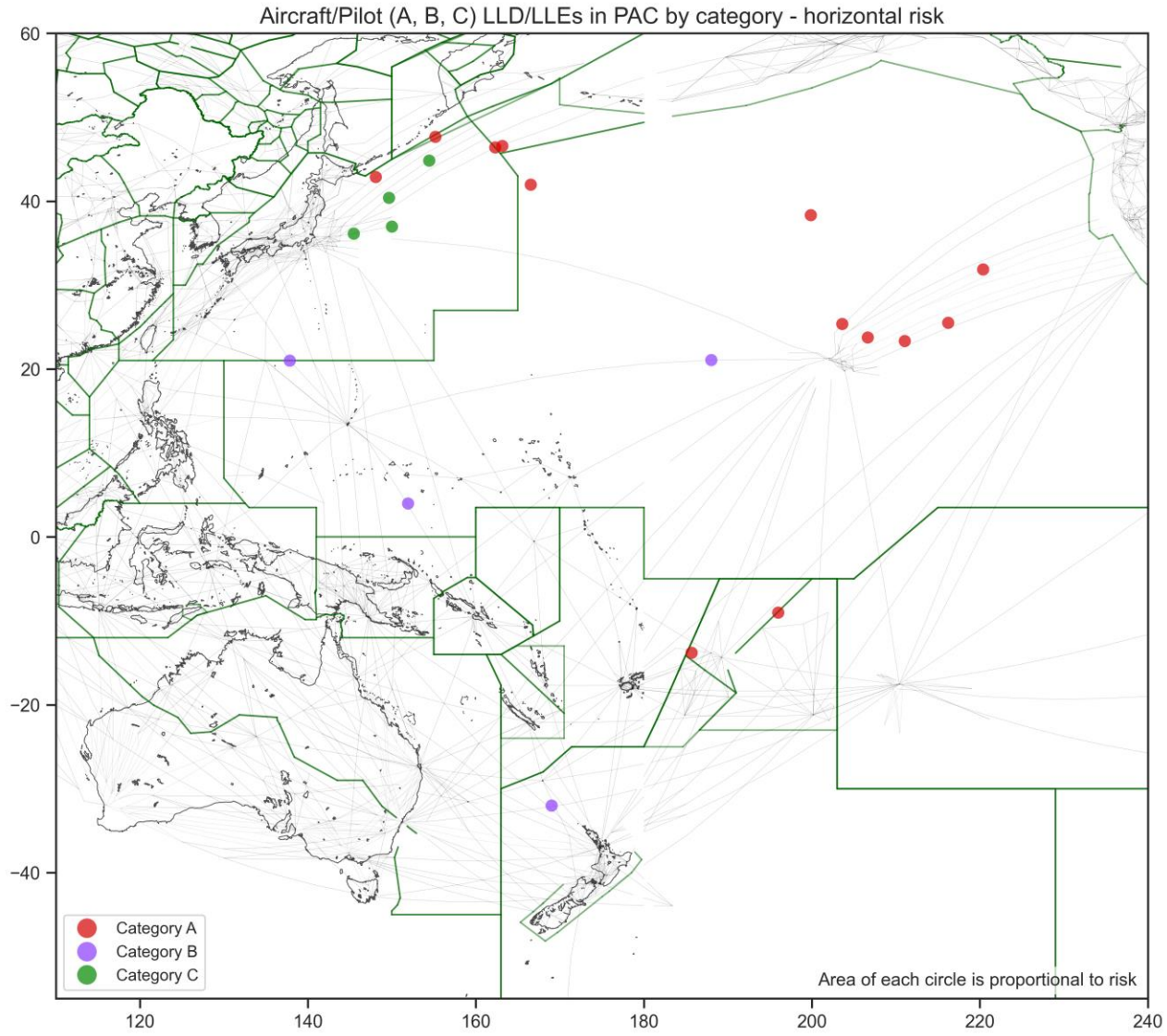
PAC: All Categories



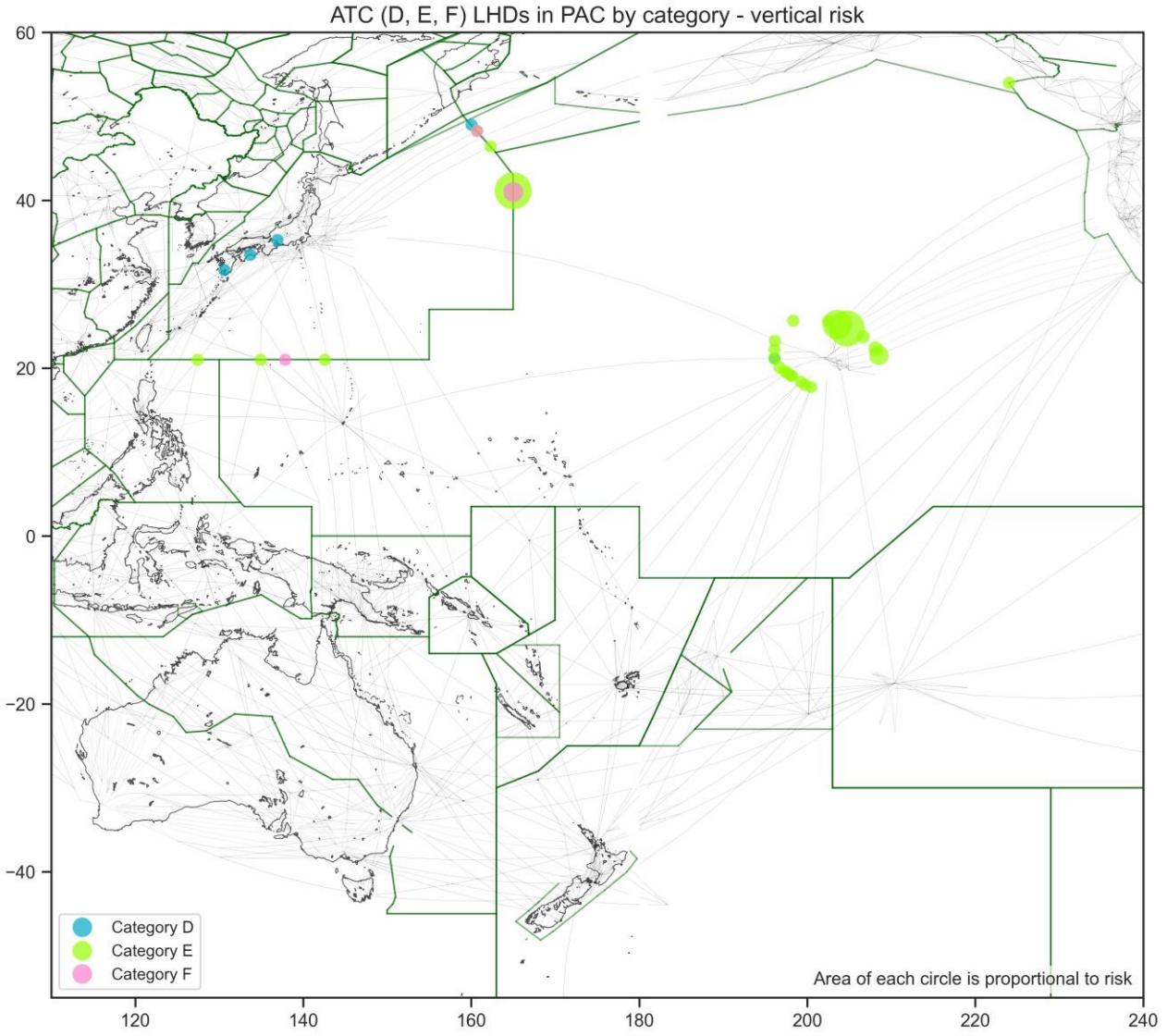


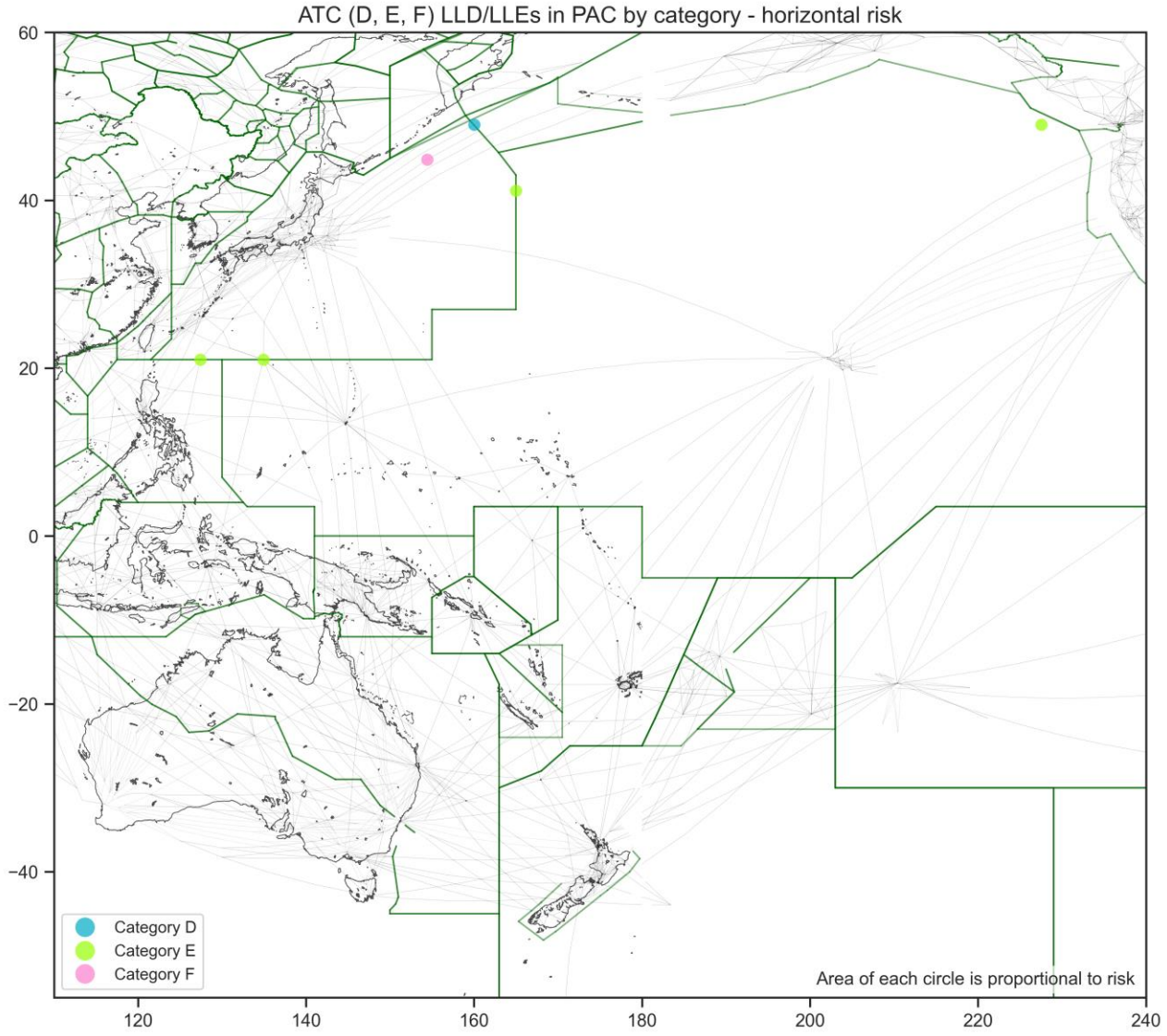
PAC: Aircrew/Pilot (A, B, C)





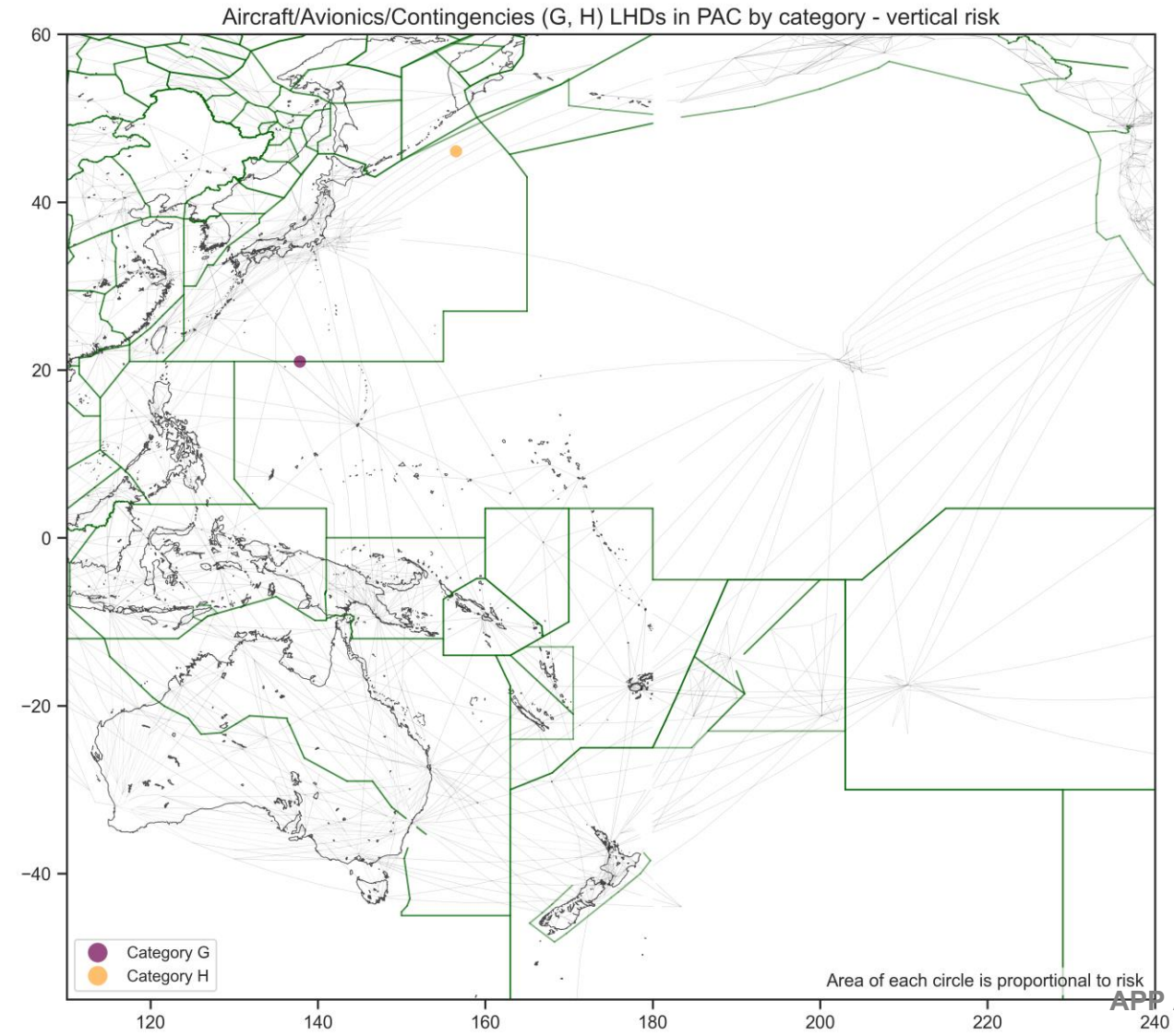
PAC: ATC (D, E, F)

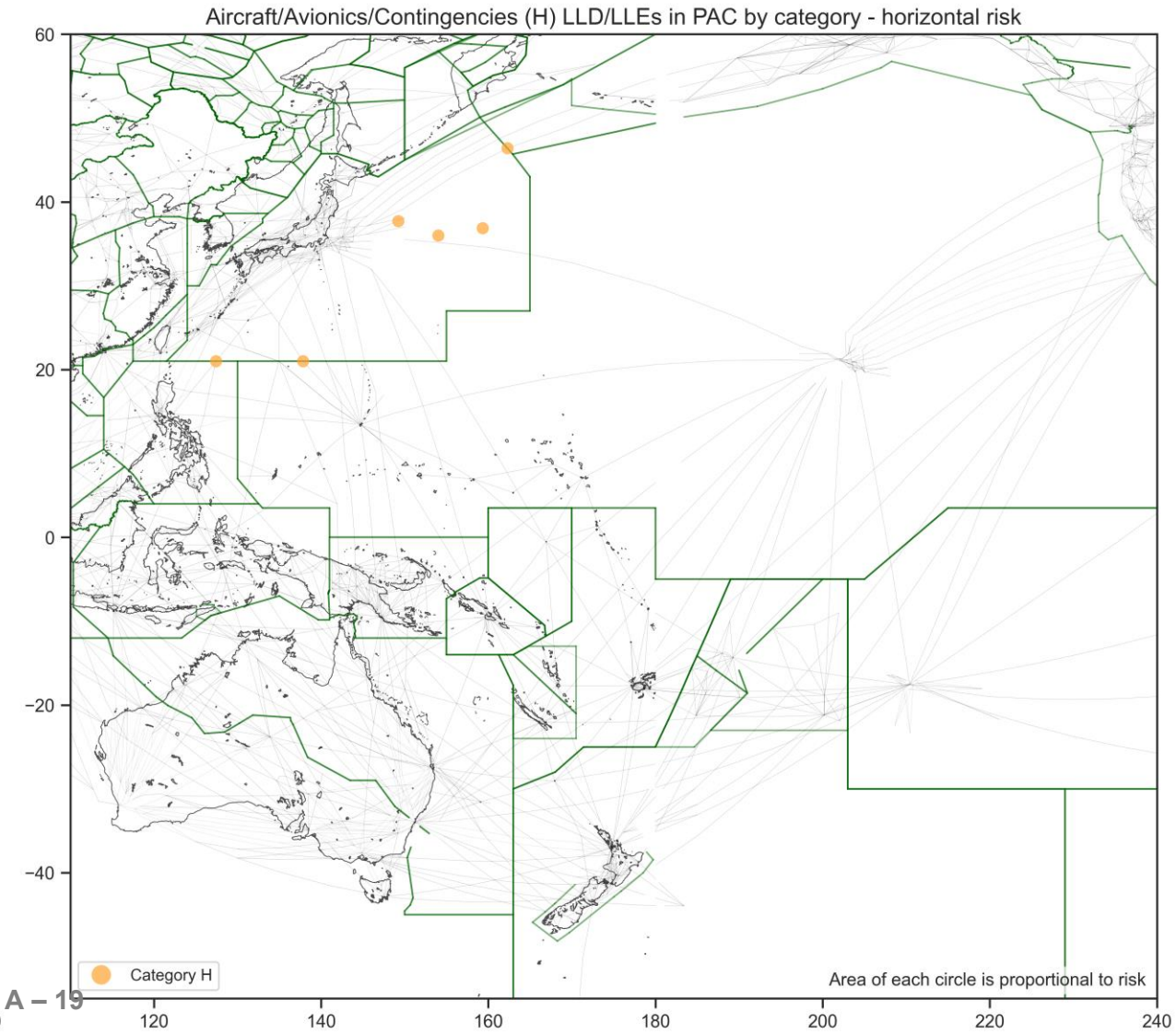

ATC (D, E, F) LHDs in PAC by category - vertical risk
60
40
20
0
−20
−40
120
140
160
180
200
220
240
Category D
Category E
Category F
Area of each circle is proportional to risk


ATC (D, E, F) LLD/LLEs in PAC by category - horizontal risk
60
40
20
0
−20
−40
120
140
160
180
200
220
240
Category D
Category E
Category F
Area of each circle is proportional to risk

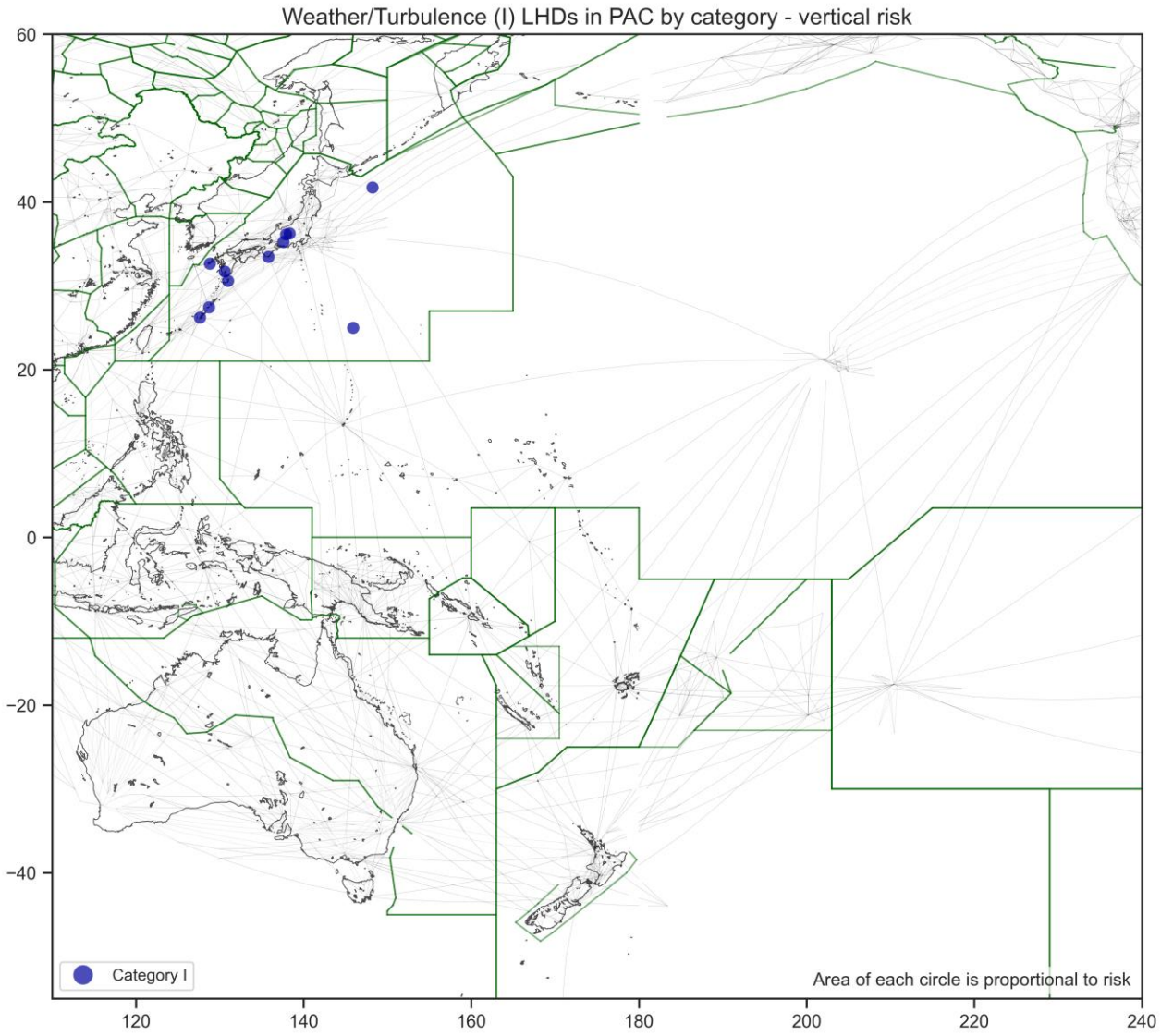
PAC: Aircraft Avionics/Contingencies

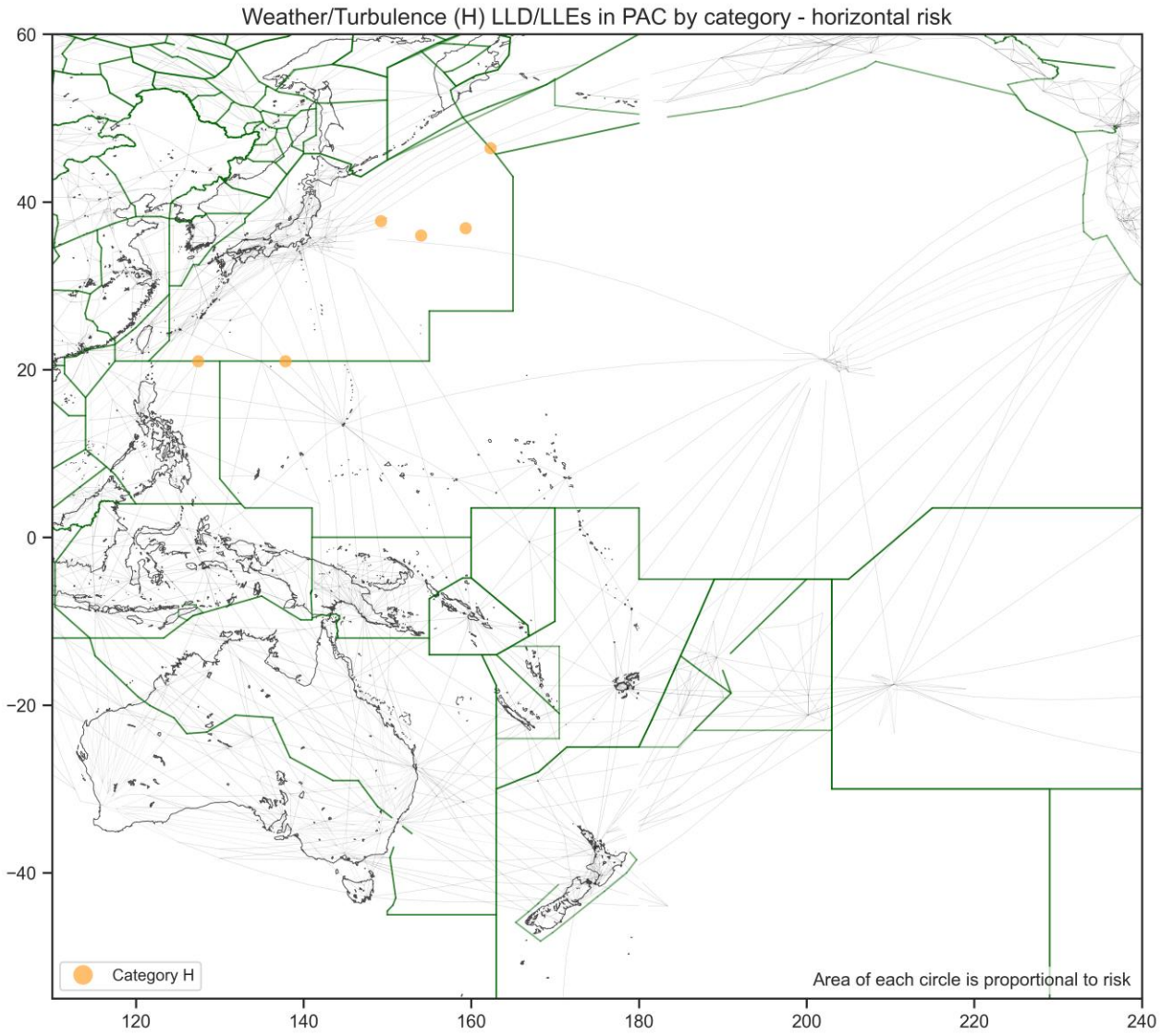
(LHD:G,H, LLD/LLE:H)



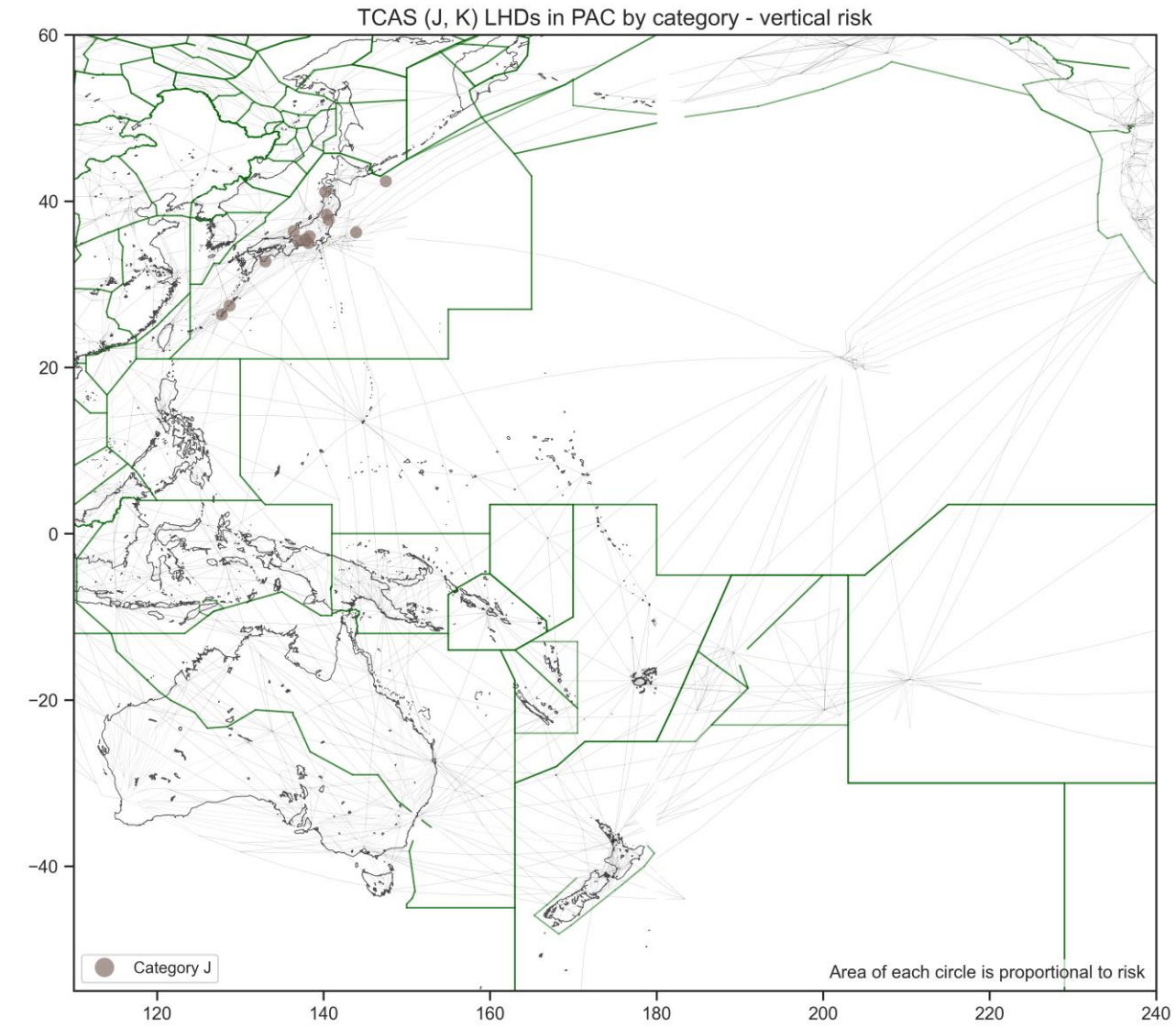


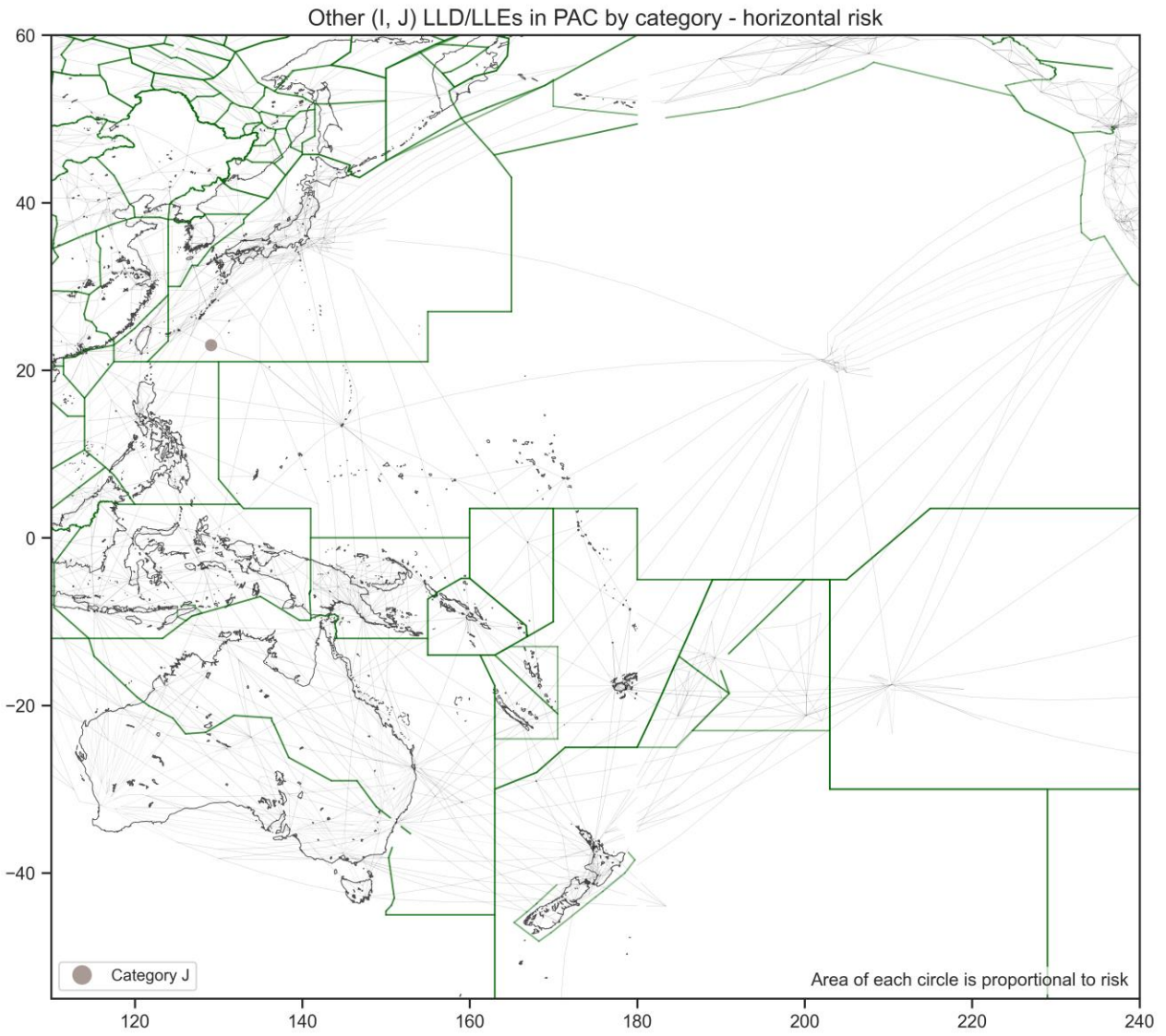
PAC: Weather/Turbulence (LHD:I, LLD/LLE:H)





PAC: TCAS (LHD:J, K, LLD/LLE:I,J)





PAC : Hot Spots

PAC: LHD Hot Spot N (Hawaii CEP/Oakland USA)

Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

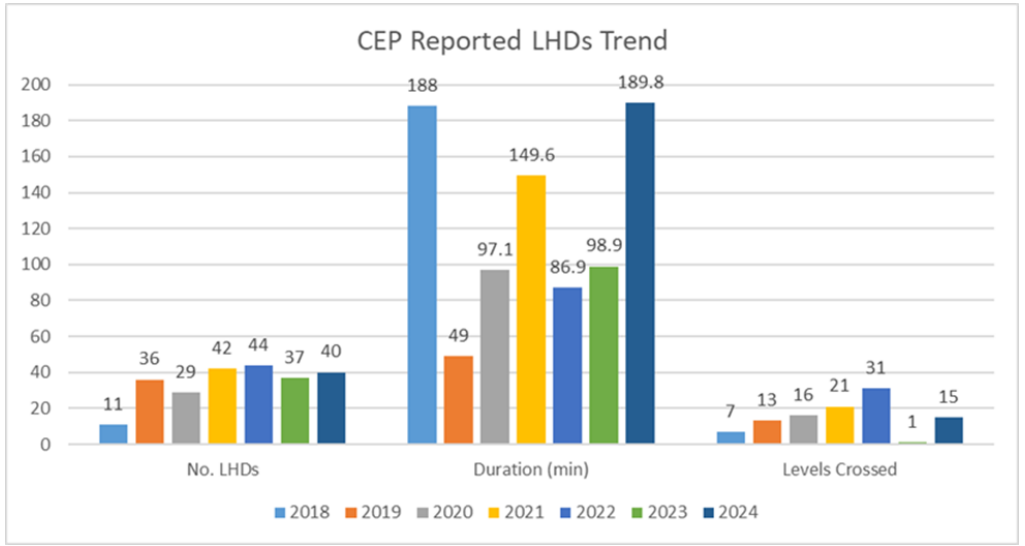
Contributing Factors : High-volume Central East Pacific (CEP) traffic flow and the user-preferred routes that cross the CEP airways.

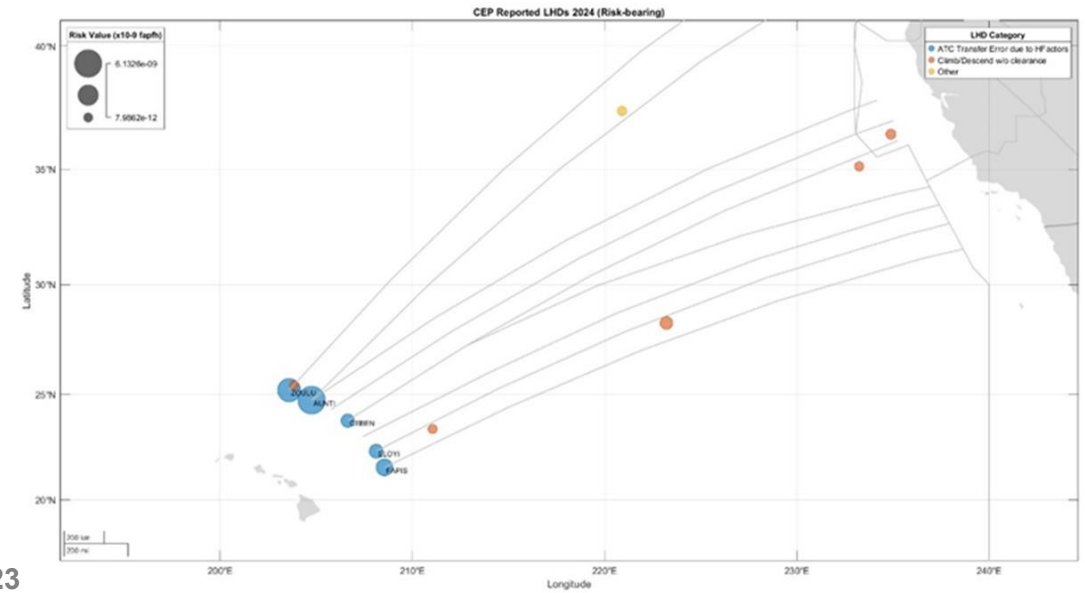
Trend: The number of LHDs in 2024 remained consistent with previous years.

Mitigations: Oakland ARTCC and Honolulu Control Facility (HCF) have developed mitigation procedures. The long term mitigation is a new ATC system scheduled to be implemented at the HCF in 2027.

Result from the hot spot identification process:

Hot Spot N remains on the list of hot spots and should continue to be monitored until the LHDs and risk are decreased and further safety improvement initiatives are implemented.





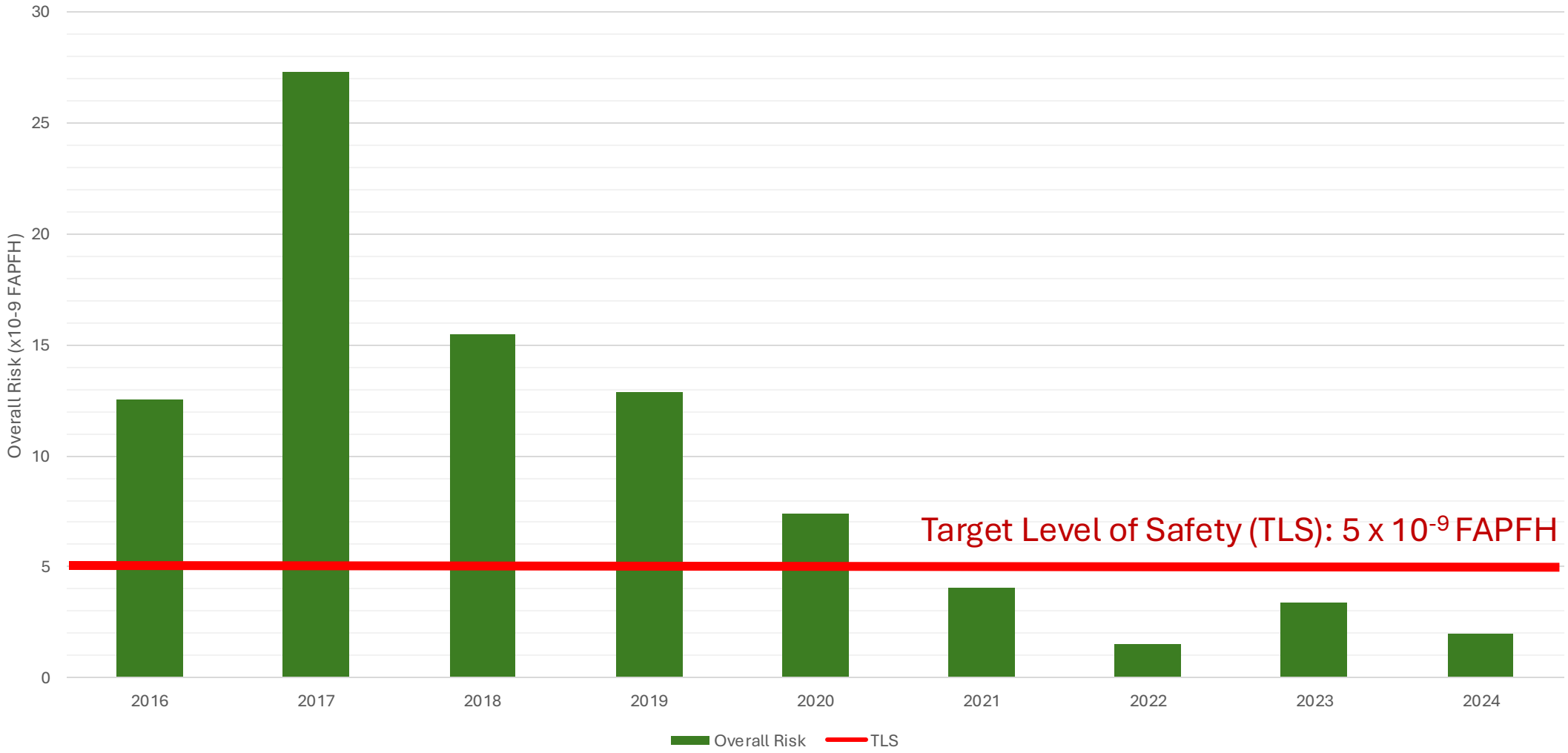
ASIA : Vertical Collision Risk

ASIA: Vertical Collision Risk Estimates

2024 Annual flying hours: 11,413,712 hours/year

Vertical Risk Estimates		Remark
Vertical Technical Risk	0.70×10^{-9} FAPFH	Below Technical TLS
Vertical Operational Risk	1.29×10^{-9} FAPFH	
Vertical Overall Risk	1.99×10^{-9} FAPFH	Below TLS

ASIA: Vertical Collision Risk Estimates



ASIA: Summary of LHDs

Attributions	Category Code	Description	Number of Occurrences	Duration (minutes)	Number of Levels Crossed
Aircrew/ Pilot	A	Flight crew failing to climb/descend the aircraft as cleared	22	6	15.5
	B	Flight crew climbing/descending without ATC Clearance	26	12	21.1
	C	Incorrect operation or interpretation of airborne equipment	19	4	14.5
ATC	D	ATC system loop error	14	6	9.5
	E	Coordination errors in the ATC-to-ATC transfer of control responsibility as a result of human factors issues	488	156	80.3
	F	Coordination errors in the ATC-to-ATC transfer of control responsibility as a result of equipment outage or technical issues	13	3	1

ASIA: Summary of LHDs

Attributions	Category Code	Description	Number of Occurrences	Duration (minutes)	Number of Levels Crossed
Aircraft/ Avionics/ Contingencies	G	Aircraft contingency event leading to sudden inability to maintain assigned flight level	4	4	9
	H	Airborne equipment failure leading to unintentional or undetected change of flight level	2	0	2
Weather/ Turbulence	I	Turbulence or other weather-related causes leading to unintentional or undetected change of flight level	58	2	57.3
TCAS	J	TCAS resolution advisory, flight crew correctly climb or descend following the resolution advisory	16	1	12
	K	TCAS resolution advisory, flight crew incorrectly climb or descend following the resolution advisory	0	0	0
Other	L	An aircraft being provided with RVSM separation is not RVSM approved	0	0	0
	M	Other	101	16	3
		Total	**763**	**210**	**225.2**

ASIA : Horizontal Collision Risk

ASIA : Horizontal Collision Risk Estimates

2024 Annual flying hours: 789,118 hours/year

2024 Horizontal Risk Estimates		Remark
Total Lateral Risk	1.54×10^{-9} FAPFH	Below TLS
Total Longitudinal Risk	1.62×10^{-9} FAPFH	Below TLS
2023 Horizontal Risk Estimates		**Remark**
Total Lateral Risk	1.517×10^{-9} FAPFH	Below TLS
Total Longitudinal Risk	4.444×10^{-9} FAPFH	Below TLS

ASIA : Summary of LLDs and LLEs

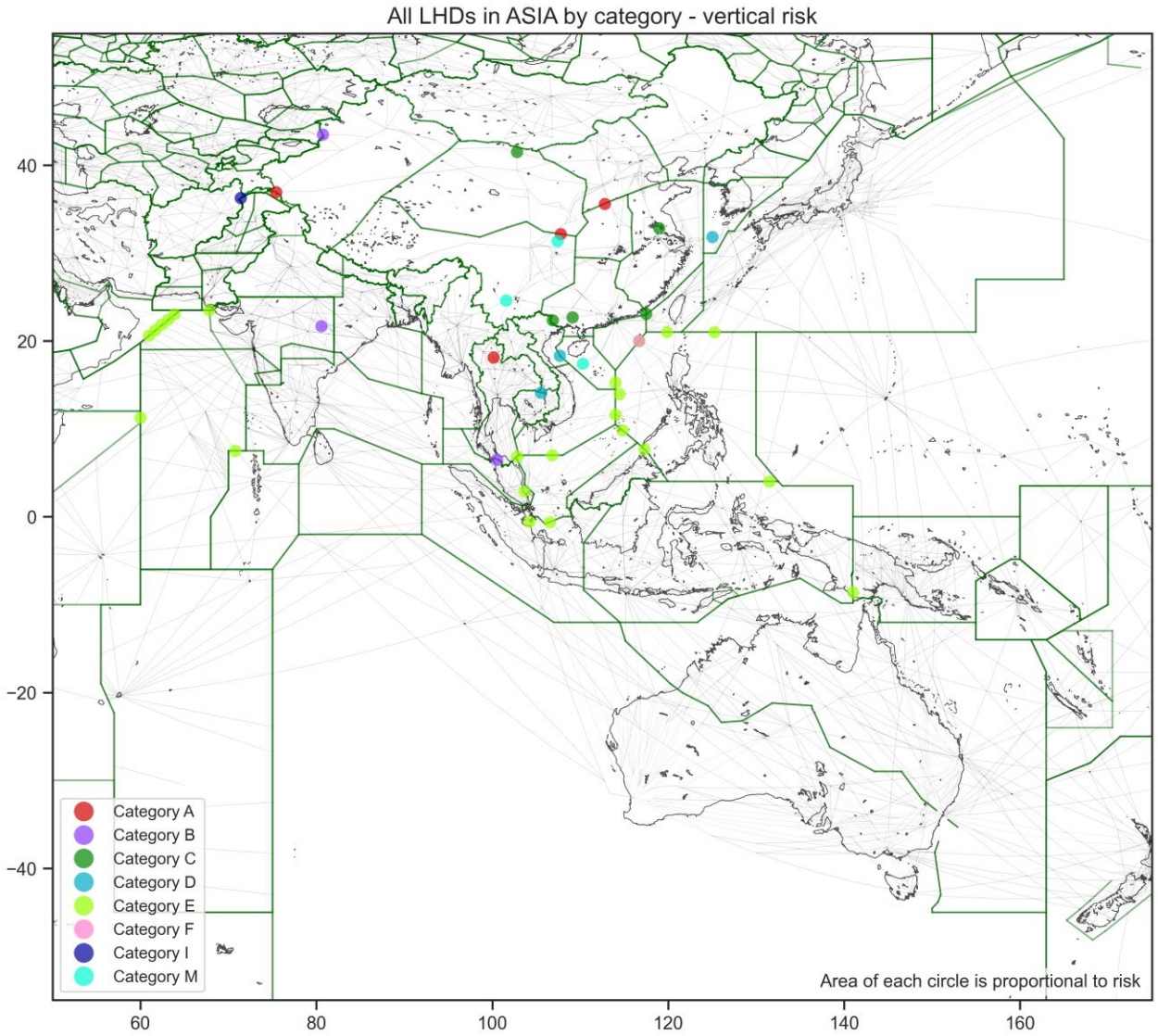
Attributions	Category Code	Description	Number of Occurrences	Duration (minutes)	Horizontal Deviation (NM)
Aircrew/ Pilot	A	Flight crew deviate without ATC Clearance	0	0	0
	B	Incorrect estimate or route provided due to incorrect operation or interpretation of airborne equipment	0	0	0
	C	Flight crew waypoint insertion error, due to correct entry of incorrect position or incorrect entry of correct position	0	0	0
ATC	D	ATC system loop error	0	0	0
	E	Coordination errors in the ATC-to-ATC transfer of control responsibility as a result of human factors issues	3	0	114
	F	Coordination errors in the ATC-to-ATC transfer of control responsibility as a result of equipment outage or technical issues	0	0	0

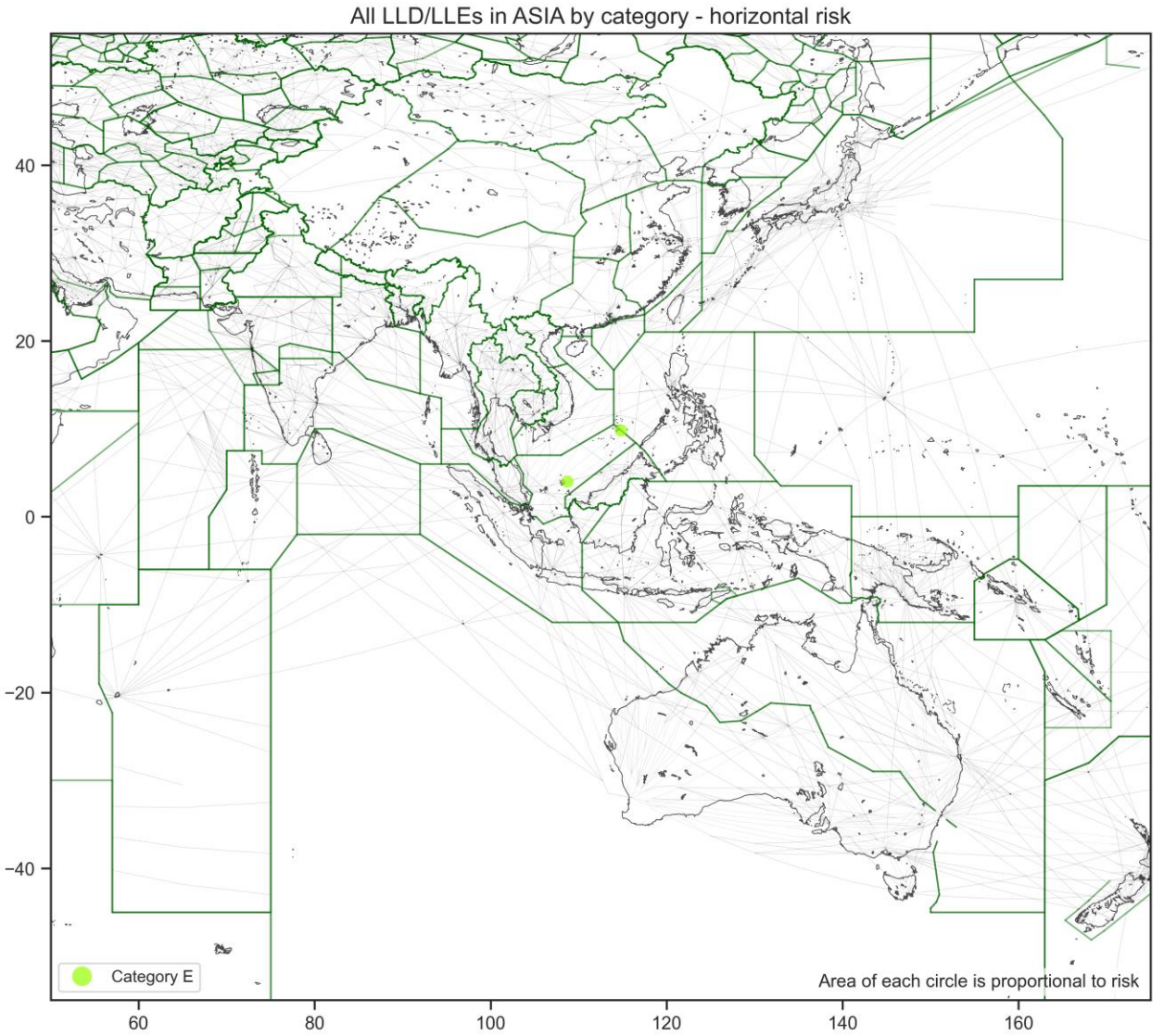
ASIA : Summary of LLDs and LLEs

Attributions	Category Code	Description	Number of Occurrences	Duration (minutes)	Horizontal Deviation (NM)
Aircraft/ Avionics/ Contingencies	G	Navigation errors due to airborne equipment failure	0	0	0
Weather/ Turbulence	H	Turbulence or other weather-related causes leading to a deviation in the horizontal dimension	0	0	0
Other	I	An aircraft was provided with reduced horizontal separation minima but did not meet the RNP/RSP/RCP specification;	0	0	0
	J	Other	0	0	0
		Total	**3**	**0**	**114**

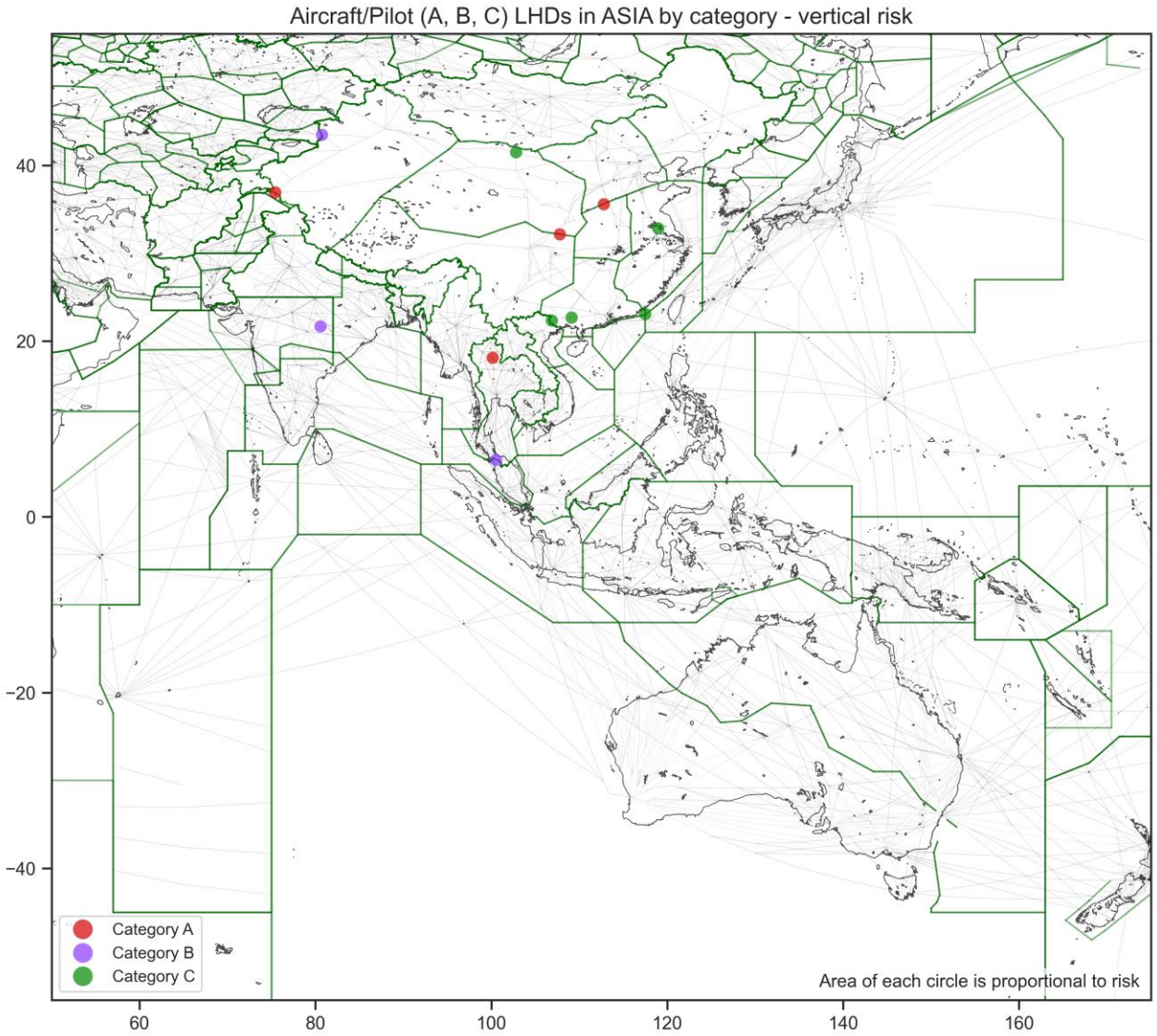
ASIA : Geolocation of LHDs/LLDs/LLEs

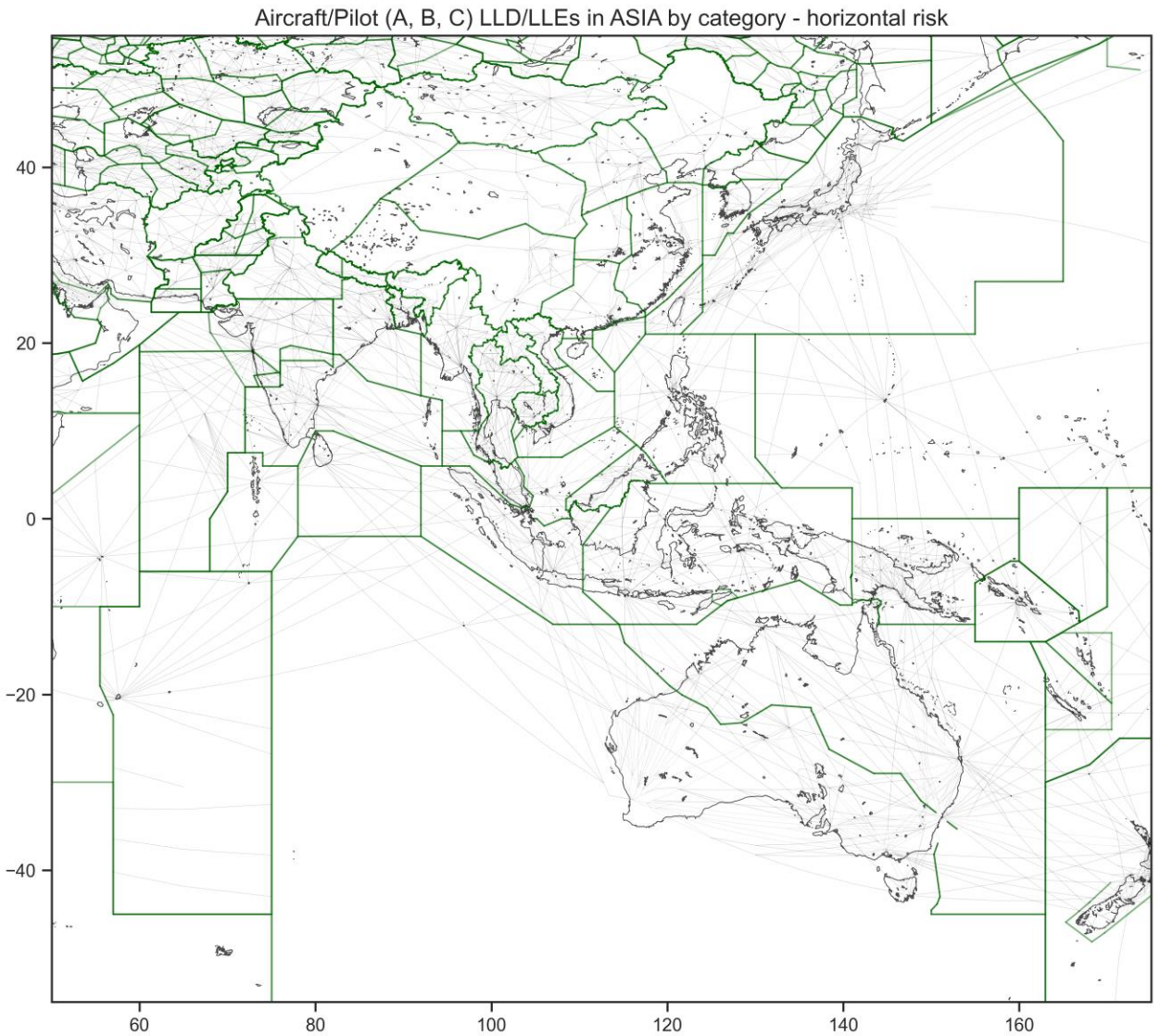
ASIA : All Categories



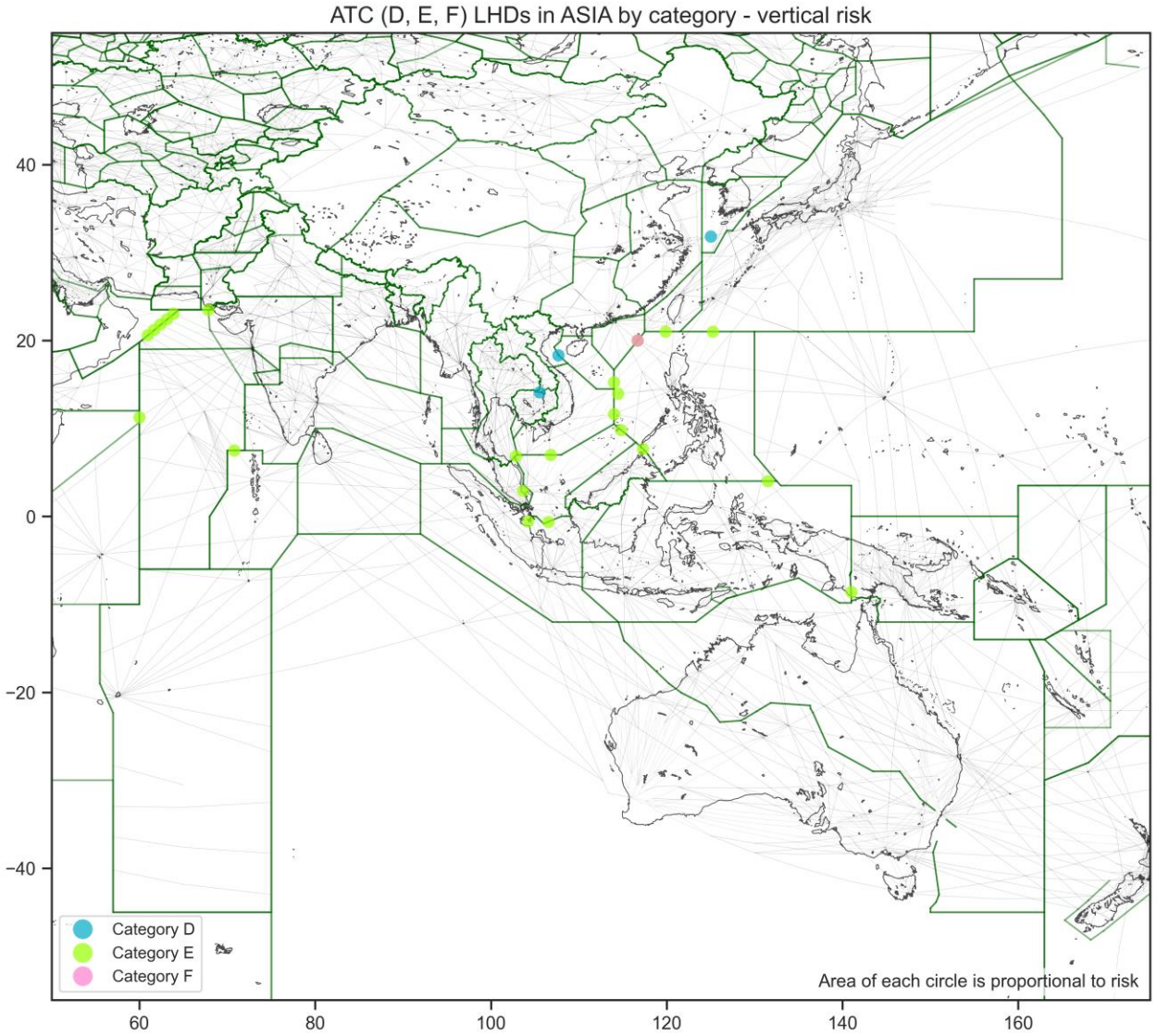


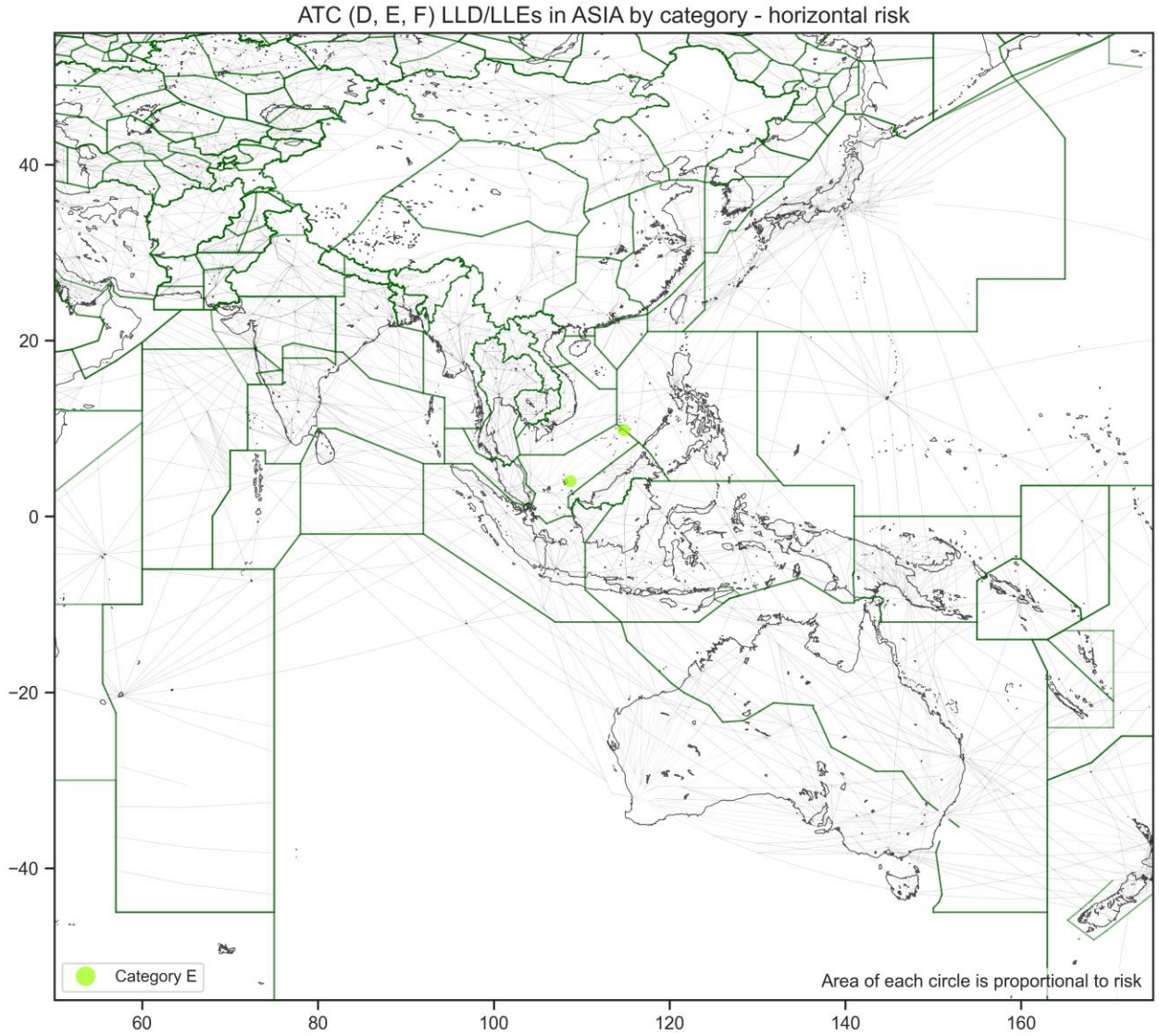
ASIA : Aircrew/Pilot (A, B, C)





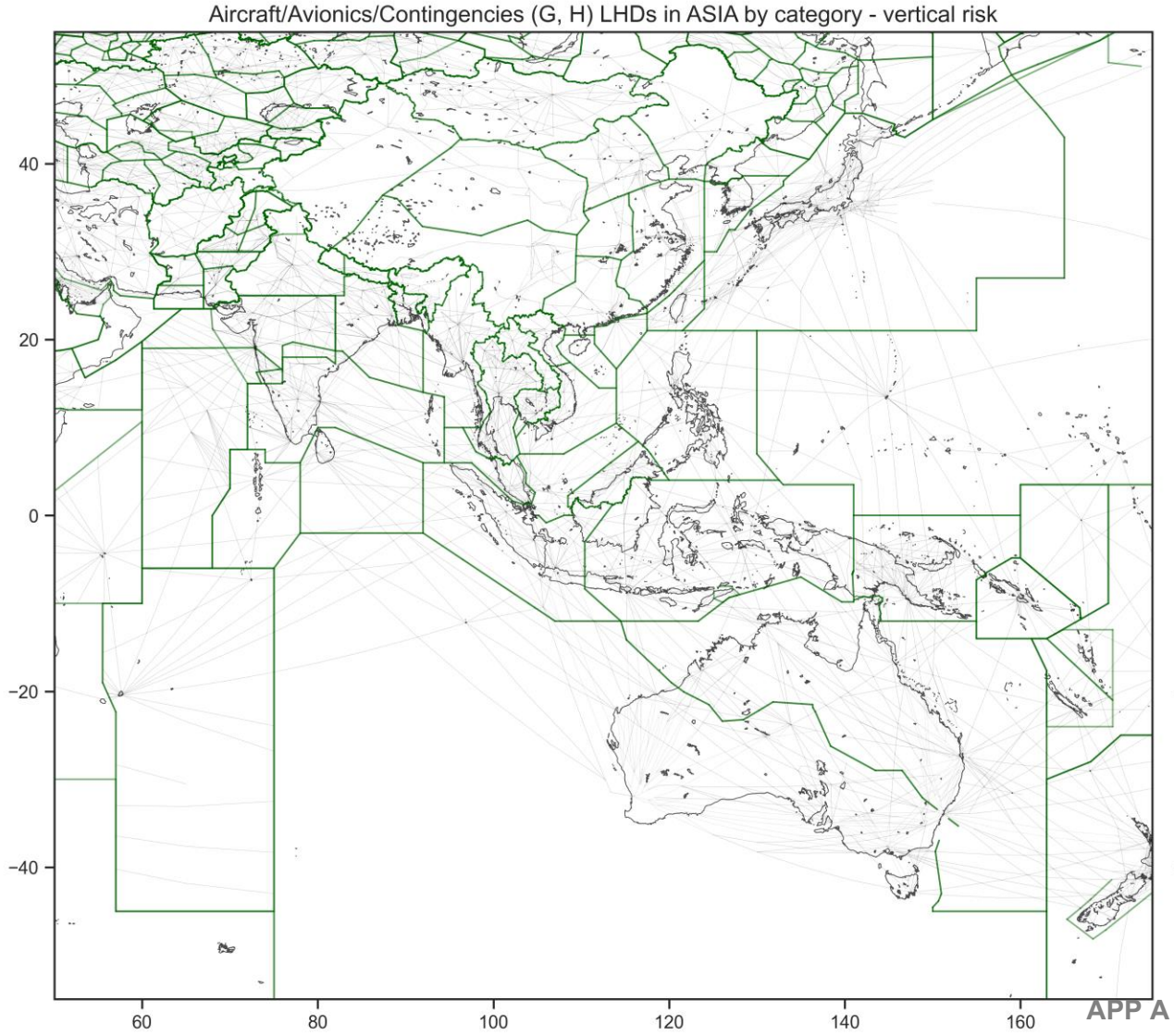
ASIA : ATC (D, E, F)

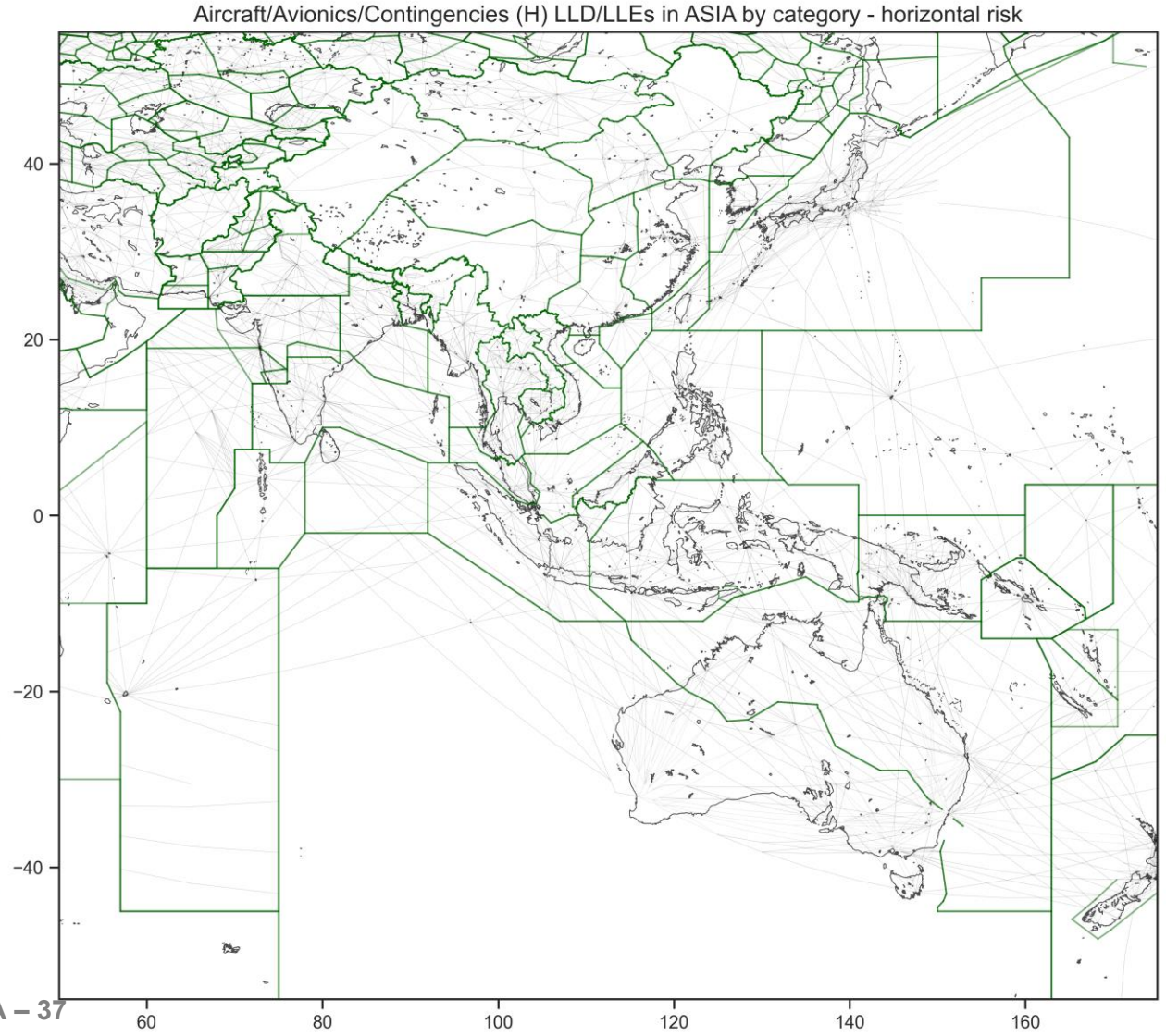

ATC (D, E, F) LHDs in ASIA by category - vertical risk
40
20
0
−20
−40
60
80
100
120
140
160
Category D
Category E
Category F
Area of each circle is proportional to risk


ATC (D, E, F) LLD/LLEs in ASIA by category - horizontal risk
40
20
0
−20
−40
60
80
100
120
140
160
Category E
Area of each circle is proportional to risk

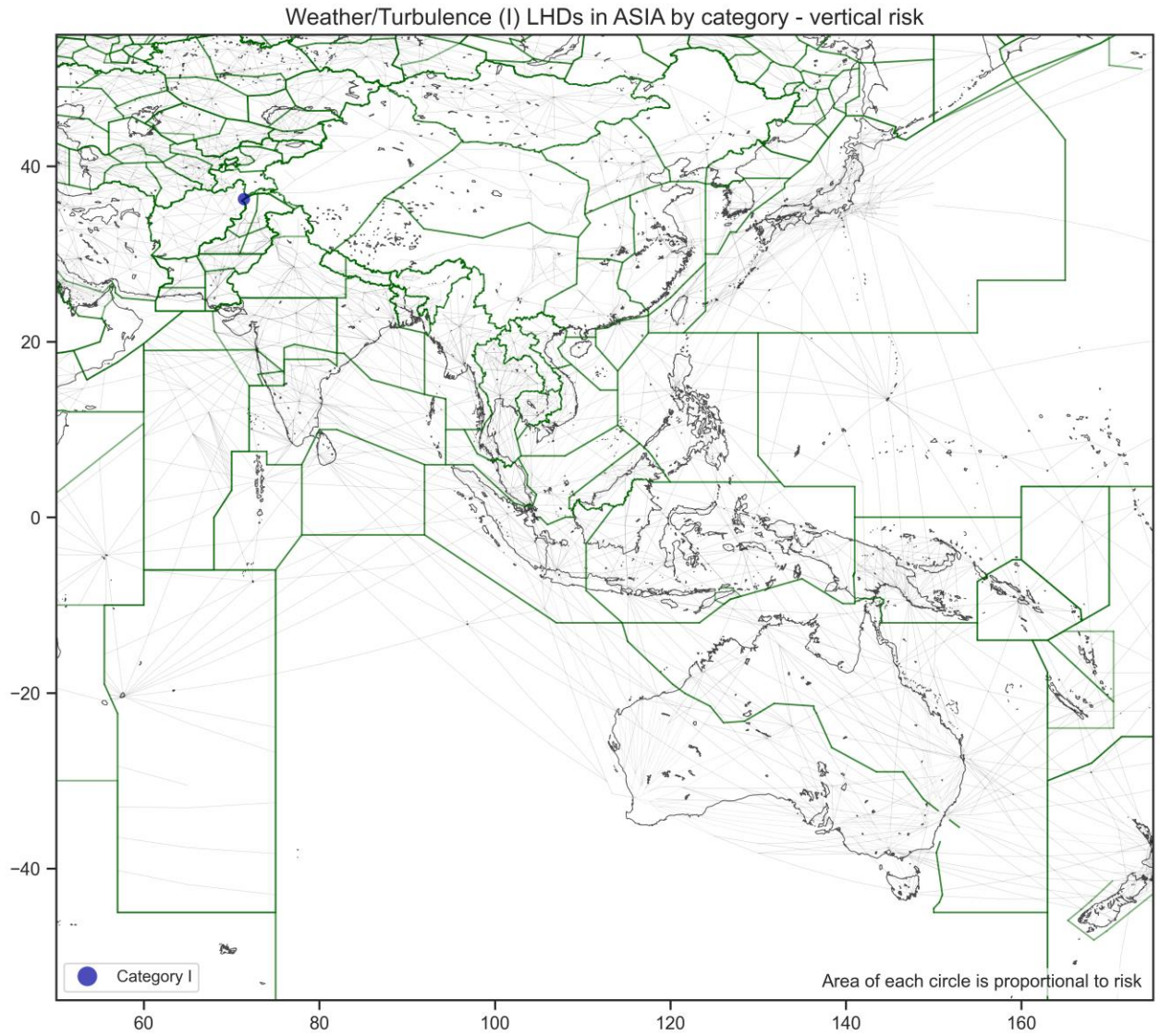
ASIA : Aircraft Avionics/Contingencies

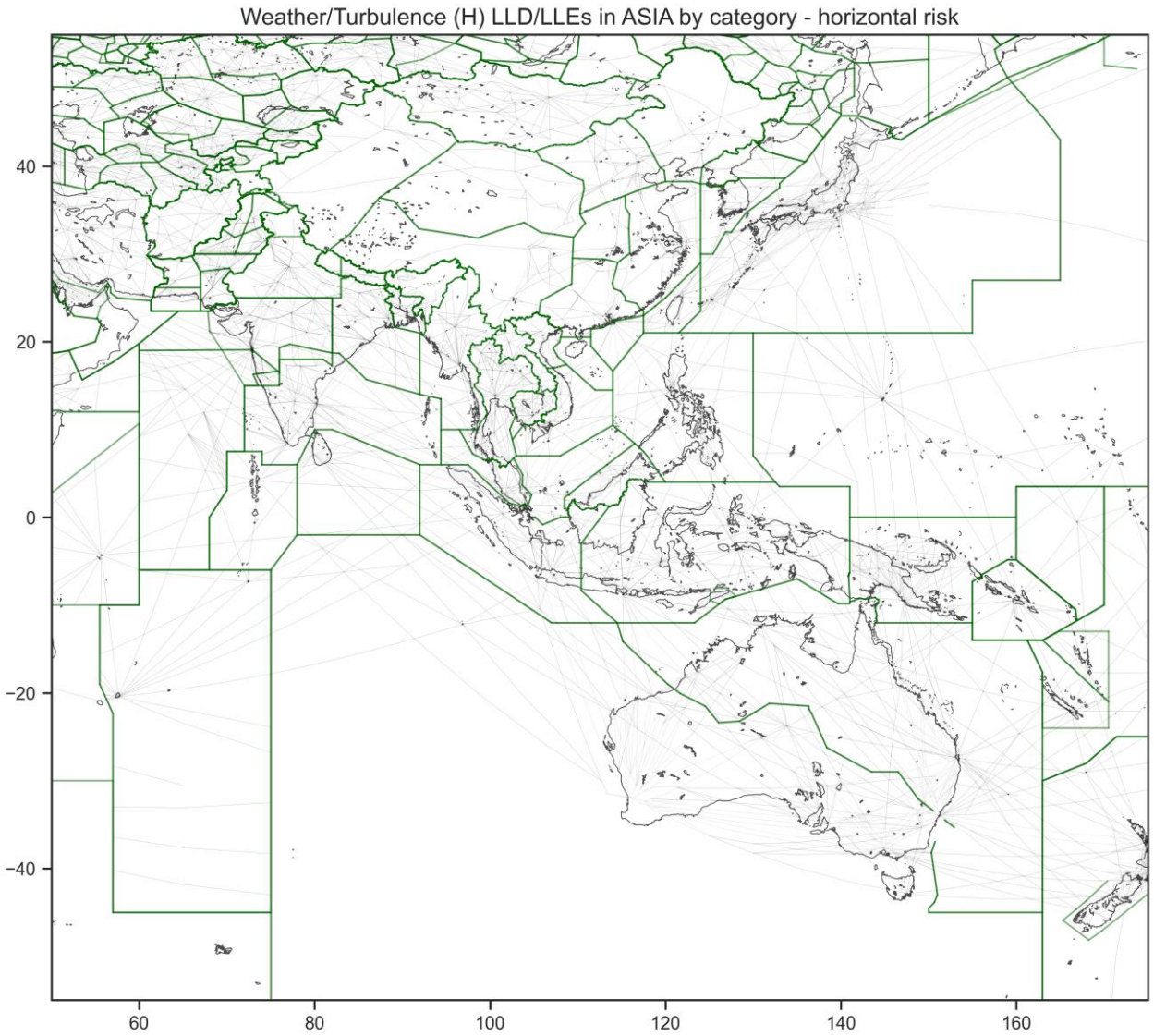
(LHD:G,H, LLD/LLE:H)



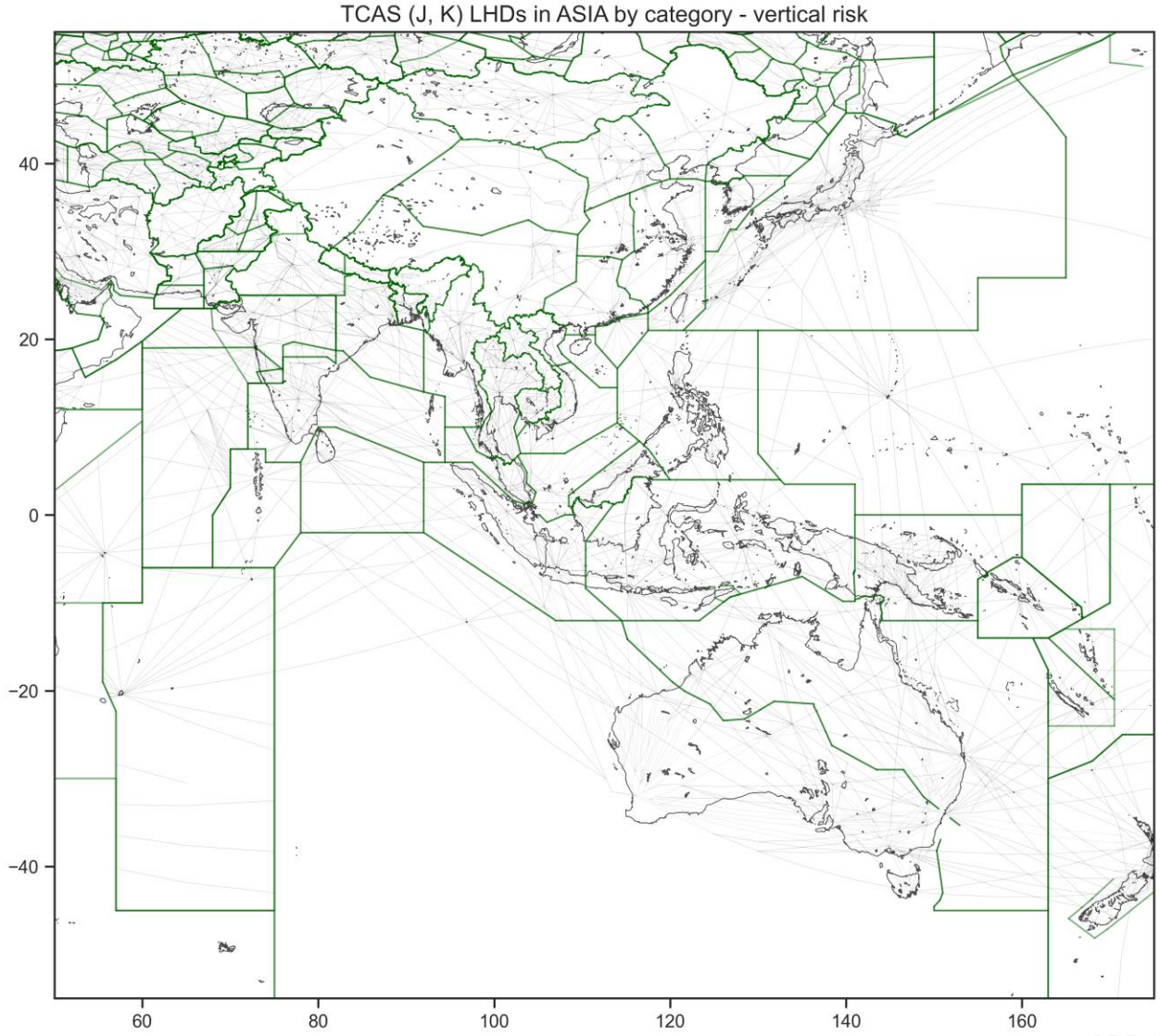


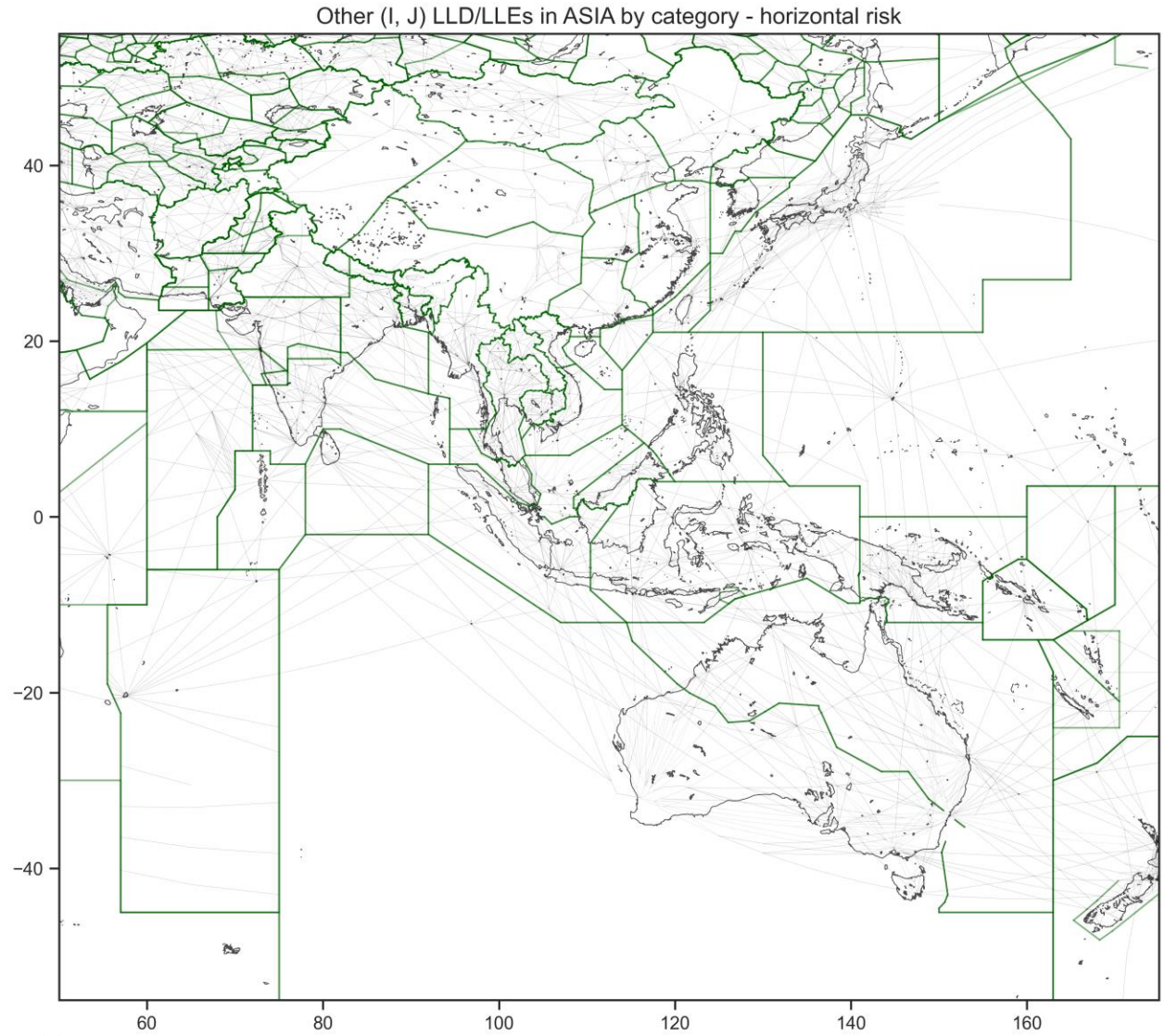
ASIA : Weather/Turbulence (LHD:I, LLD/LLE:H)





ASIA : TCAS (LHD:J, K, LLD/LLE:I,J)





ASIA : Hot Spots

ASIA : LHD Hot Spot A1 (Chennai/Dhaka/Kolkata/Yangon)

Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

Contributing Factors: Gaps in communication and surveillance among Chennai, Kolkata and Yangon ACC.

Trend:

-The number of LHDs gradually decreased.
-The operational risk reduced to zero.

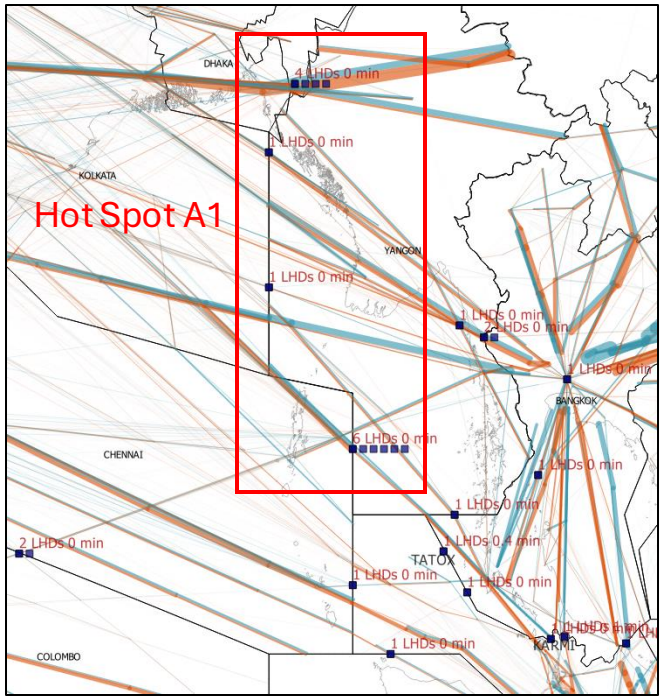
Area	Number of LHDs			Operational Risk (10^{-9} FAPFH)		
	2022	2023	2024	2022	2023	2024
Kolkata/Yangon	17	11	6	0.00	0.00	0.00
Chennai/Yangon	23	15	6	0.02	0.06	0.00

Mitigations:

- Surveillance has been enhanced by Space-Based ADS-B in Indian FIRs and ADS-B data sharing among Kolkata, Chennai, and Yangon ACCs.
- The AIDC was initiated between Kolkata ACC/Chennai ACC and Yangon ACC, but full operational implementation has not been achieved.

Result from the hot spot identification process:

- Hot Spot A1 does not satisfy the hot spot criteria.
- However, AIDC implementation or other mitigation measures have not been completed.
- Consequently, **Hot Spot A1 remains on the list of hot spots** and should continue to be monitored until further mitigation are implemented.



ASIA : LHD Hot Spot B1

Incheon (Transfer-of-Control Point between Incheon ACC and Shanghai ACC)

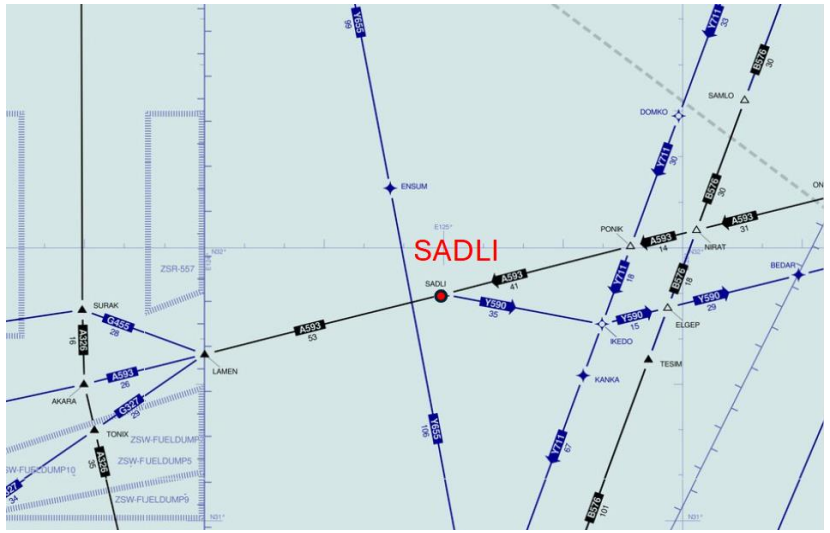
Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

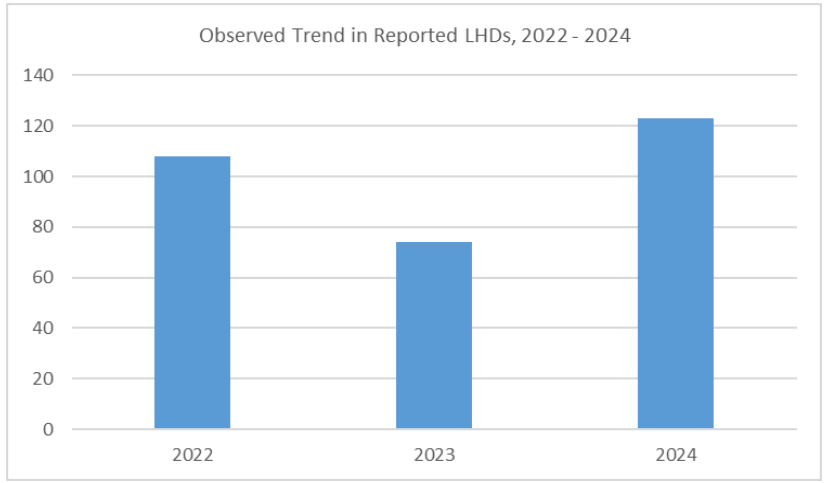
Contributing Factors:

- Lack of communication between stakeholders, including insufficient exchange and mutual understanding of LHD-related information
- High traffic demand through area with the existing airspace configuration

Trend :

- In 2024, the number of LHDs increased from 2023.
- The operational risk has been zero since 2021 because all reported occurrences were mitigated by available surveillance and direct speech circuit.





ASIA : LHD Hot Spot B1

Incheon (Transfer-of-Control Point between Incheon ACC and Shanghai ACC)

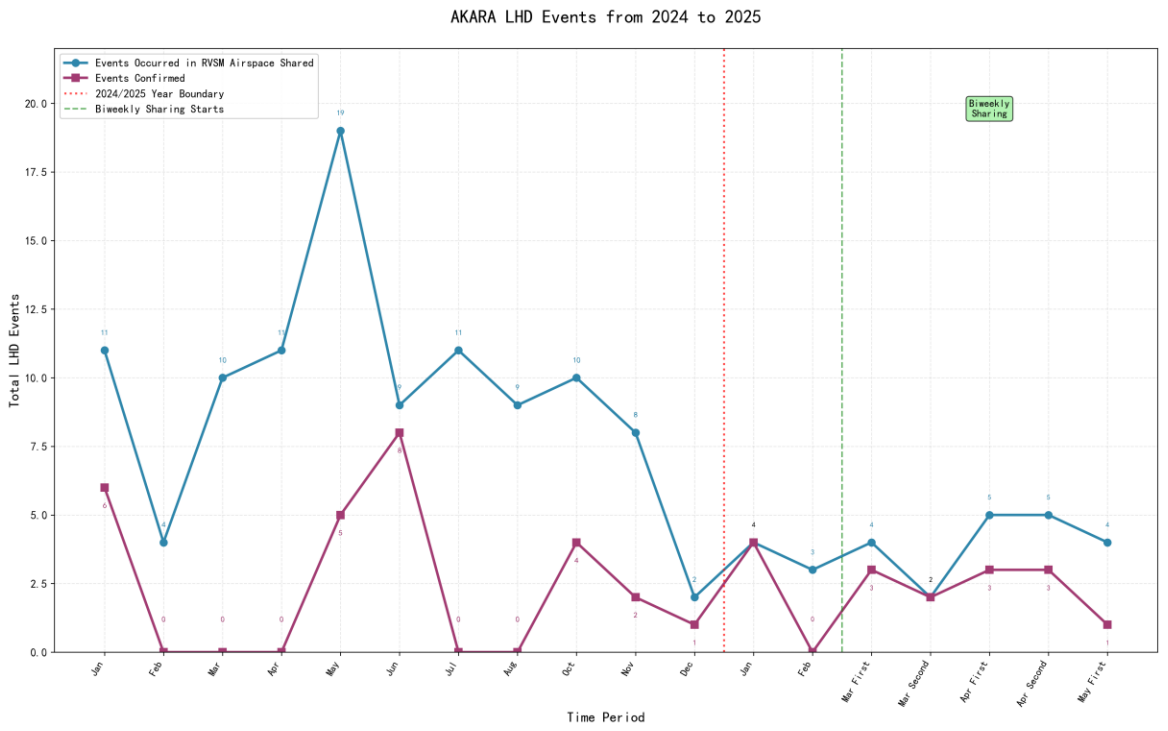
Mitigations :

- China and ROK held bilateral meetings to establish a mutual understanding of transfer errors and strengthened safety awareness.
- The LHD report-sharing mechanism was enhanced by doubling the data sharing frequency to enable more timely and effective validation.
- Route capacity has been improved since March 2021, by introducing the parallel airway Y590 on the eastern side of SADLI as Phase 1.
- Surveillance coverage was expanded. A direct speech circuit was established to support coordination.
- Bilateral meetings between ROK and China to discuss mitigation measures including Phase 2.

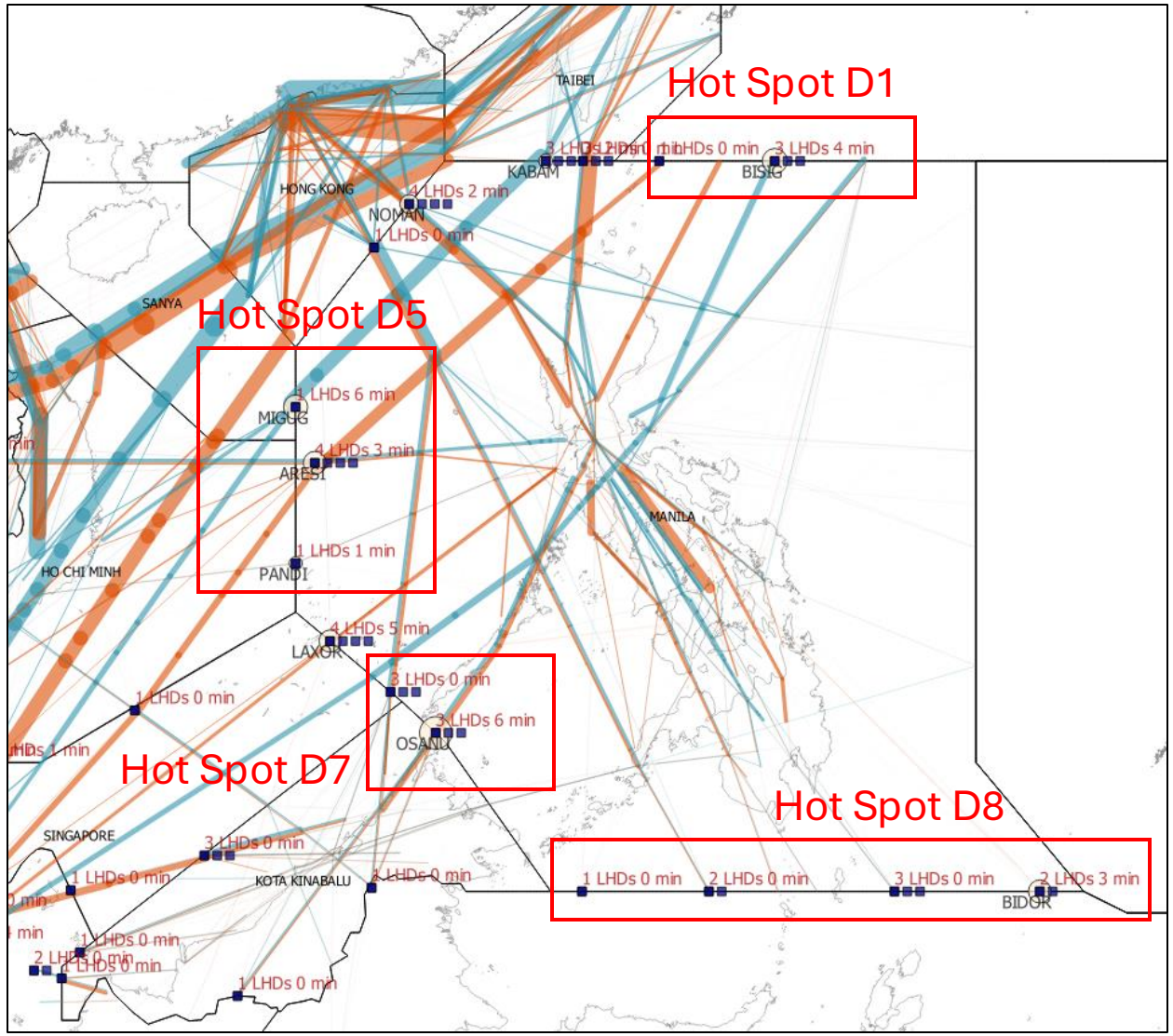
Result from the hot spot identification process:

- **Hot Spot B1 remains on the list of hot spots** and should continue to be monitored until the number of LHDs decreases and further safety improvement initiatives or mitigation measures are completed.

The trend of confirmed LHDs after doubling the report-sharing frequency among stakeholders



ASIA : LHD Hot Spot D1, D5, D7 and D8



Hot Spot D1: Fukuoka/Manila FIR boundary

Hot Spot D5: Ho Chi Minh/Manila FIR boundary

Hot Spot D7: Kota Kinabalu/Manila FIR boundary

Hot Spot D8: Manila/Ujung Pandang FIR boundary

Remark:

In 2024, Hot Spot D, which was represented the entire Manila FIR boundary, was subdivided into nine hot spots: D1 through D9.

Each subdivision was re-analyzed with the hot spot identification process using the historical data up to 2023. As a result, Hot Spots D2, D3, D4, D6, and D9 were removed from the list of hot spots due to continuous improvements achieved through existing mitigations.

ASIA : LHD Hot Spot D1 (Fukuoka/Manila)

Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

Contributing Factors :

- Gaps in communication and surveillance
- Complexity in the aircraft transfer procedure from Manila ACC to Fukuoka ACC

Trend:

- The number of LHDs and operational risk decreased.

Area	Number of LHDs			Operational Risk (10^{-9} FAPFH)		
	2022	2023	2024	2022	2023	2024
Hot Spot D1 (Fukuoka/Manila)	7	6	5	1.74	0.96	0.22

Note: The number of LHDs and operational risk include submissions from both the Manila FIR (MAAR) and the Fukuoka FIR (JASMA).

Mitigations:

- The timing for sending transfer information from Manila ACC to Fukuoka ACC was adjusted from 30 minutes to 20 minutes prior to the estimated time over the FIR boundary. This change reduced the complexity by allowing the transfer to be coordinated within a single sector instead of across two sectors.

Result from the hot spot identification process:

- Hot Spot D1 does not satisfy the hot spot criteria.
- In addition, Fukuoka and Manila ACCs have actively collaborated to investigate the causes and implement mitigations.
- As a result, **Hot Spot D1 is marked as a potential non-hotspot**.

ASIA : LHD Hot Spot D5 (Ho Chi Minh/Manila)

Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

Contributing Factors :

- Gaps in communication and surveillance

Trend:

- The number of LHDs and operational risk increased.

Area	Number of LHDs			Operational Risk (10^{-9} FAPFH)		
	2022	2023	2024	2022	2023	2024
Hot Spot D5 (Ho Chi Minh/Manila)	3	2	6	0.05	0.10	0.14

Mitigations:

- Since 2018, the Philippines has implemented safety improvement initiatives, including new ATM system, sector redesign, enhanced surveillance and ADS-C/CPDLC coverage, controller training, coordination with adjacent ACCs, and AIDC.

Result from the hot spot identification process:

- Hot Spot D5 does not satisfy the hot spot criteria.
- However, AIDC implementation has not been completed yet.
- Therefore, **Hot Spot D5 remains on the list of hot spots** and should continue to be monitored until further safety improvement initiatives are implemented.

ASIA : LHD Hot Spot D7 (Kota Kinabalu/Manila)

Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

Area	Number of LHDs			Operational Risk (10^{-9} FAPFH)		
	2022	2023	2024	2022	2023	2024
Hot Spot D7 (Kota Kinabalu/Manila)	3	5	6	0.04	0.13	0.12

Contributing Factors :

- Gaps in communication and surveillance

Trend:

- The number of LHDs slightly increased.
- Operational risk slightly decreased.

Mitigations:

- Since 2018, the Philippines has implemented safety improvement initiatives, including new ATM system, sector redesign, enhanced surveillance and ADS-C/CPDLC coverage, controller training, coordination with adjacent ACCs, and AIDC.

Result from the hot spot identification process:

- Hot Spot D7 does not satisfy the hot spot criteria.
- However, AIDC implementation is currently in the operational trial phase, with full implementation expected in the fourth quarter of 2025.
- Consequently, **Hot Spot D7 remains on the list of hot spots** and should continue to be monitored until further safety improvement initiatives are implemented.

ASIA : LHD Hot Spot D8 (Manila/Ujung Pandang)

Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

Contributing Factors :

- Gaps in communication and surveillance

Trend:

- The number of LHDs and operational risk decreased.

Area	Number of LHDs			Operational Risk (10^{-9} FAPFH)		
	2022	2023	2024	2022	2023	2024
Hot Spot D8 (Manila/Ujung Pandang)	2	15	8	0.11	0.41	0.06

Mitigations:

- Since 2018, the Philippines has implemented safety improvement initiatives, including new ATM system, sector redesign, enhanced surveillance and ADS-C/CPDLC coverage, controller training, coordination with adjacent ACCs, and AIDC.

Result from the hot spot identification process:

- Hot Spot D8 does not satisfy the hot spot criteria.
- In addition, AIDC has been successfully operated since 2020.
- Thus, **Hot Spot D8 is marked as a potential non-hotspot**.

ASIA : LHD Hot Spot F (Mogadishu/Mumbai)

Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

Contributing Factors: Gaps in communication and surveillance between Mogadishu and Mumbai ACC.

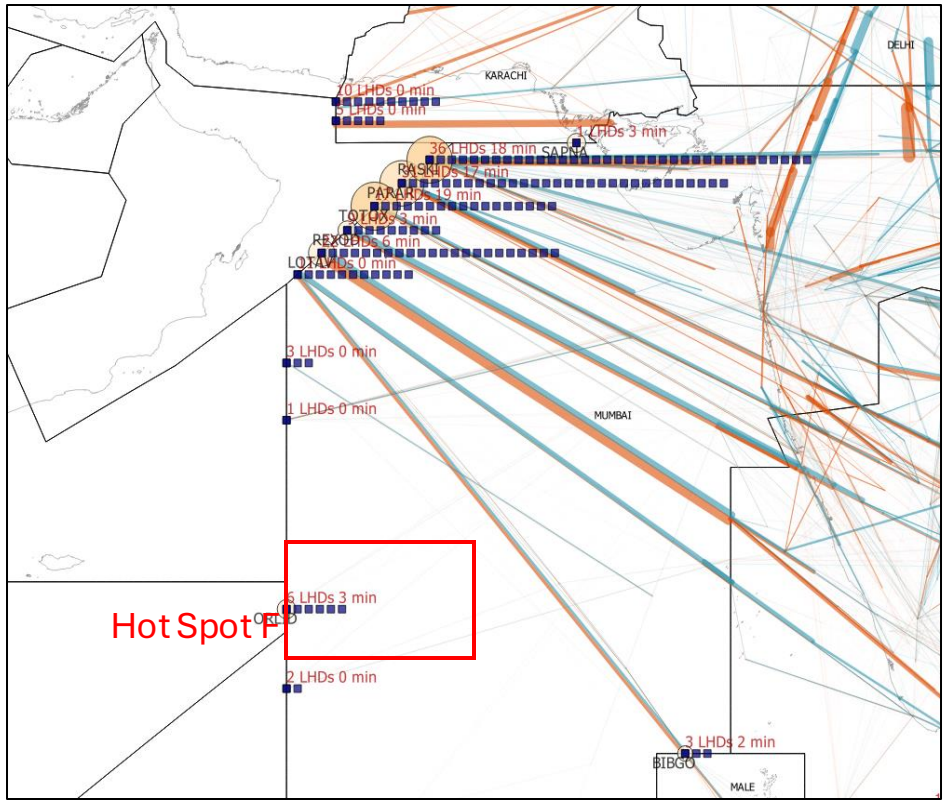
Trend:
- The number of LHDs slightly decreased.
- Operational risk increased, but remains at a low level.

Mitigations:
- Surveillance coverage was enhanced through Space-Based ADS-B in Indian FIRs.
- AIDC implementation between Mogadishu and Mumbai was initiated but remained in the testing phase.

Result from the hot spot identification process:

- Hot Spot F does not satisfy the hot spot criteria.
- However, AIDC implementation or other mitigation measures have not been completed yet.
- Thus, **Hot Spot F remains on the list of hot spots.**

Area	Number of LHDs			Operational Risk (10^{-9} FAPFH)		
	2022	2023	2024	2022	2023	2024
Hot Spot F (Mogadishu/Mumbai)	9	10	7	0.02	0.00	0.05



ASIA : LHD Hot Spot G1 (Mumbai/Muscat)

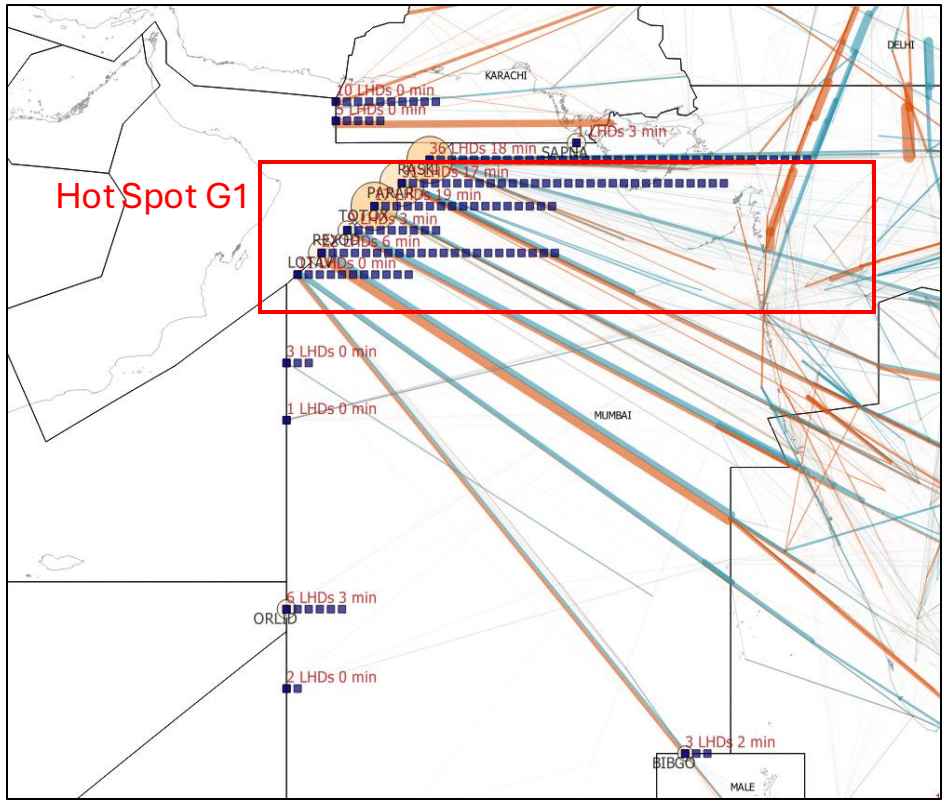
Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

Contributing Factors : Gaps in communication and surveillance among Mumbai and Muscat ACCs.

Area	Number of LHDs			Operational Risk (10^{-9} FAPFH)		
	2022	2023	2024	2022	2023	2024
Hot Spot G1 (Mumbai/Muscat)	43	138	132	0.79	2.79	1.09

Trend:
- The number of LHDs slightly decreased from 2023, but remains high.
- Operational risk decreased.

Mitigations:
- Surveillance coverage was enhanced through Space-Based ADS-B in Indian FIRs.
- The AIDC implementation between Mumbai and Muscat ACCs was initiated but remained in the testing phase.



Result from the hot spot identification process:

- Hot Spot G1 satisfies the hot spot criteria in terms of the number of LHDs and operational risk.
- Therefore, **Hot Spot G1 remains on the list of hot spots** and should continue to be monitored until the number of LHDs decreases and further safety improvement initiatives or mitigation measures, such as AIDC, are completed.

ASIA : LHD Hot Spot G2 (Mumbai/Sanaa)

Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

Contributing Factors : Gaps in communication and surveillance among Mumbai and Sanaa ACCs.

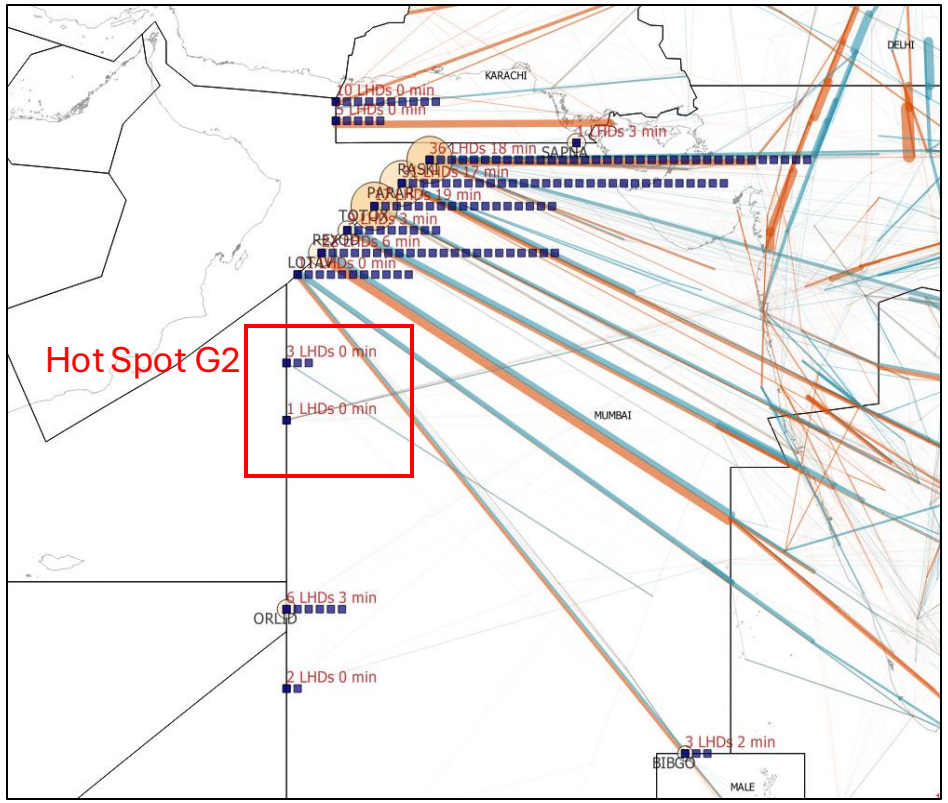
Area	Number of LHDs			Operational Risk (10^{-9} FAPFH)		
	2022	2023	2024	2022	2023	2024
Hot Spot G2 (Mumbai/Sanaa)	2	3	4	0.00	0.00	0.00

Trend:
- The number of LHDs slightly increased
- Operational risk was zero.

Mitigations:
- Surveillance coverage was enhanced through Space-Based ADS-B in Indian FIRs.

Result from the hot spot identification process:

- Hot Spot G2 does not satisfy the hot spot criteria.
- However, further mitigation such as AIDC implementation have not been planned.
- Therefore, **Hot Spot G2 remains on the list of hot spots** and should continue to be monitored until further safety improvement initiatives or mitigation measures, such as AIDC, are completed.



ASIA : LHD Hot Spot J (Jakarta/Singapore)

Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

Contributing Factors : Gaps in communication and surveillance between Jakarta and Singapore ACC.

Trend:

- The number of LHDs and operational risk significantly decreased.

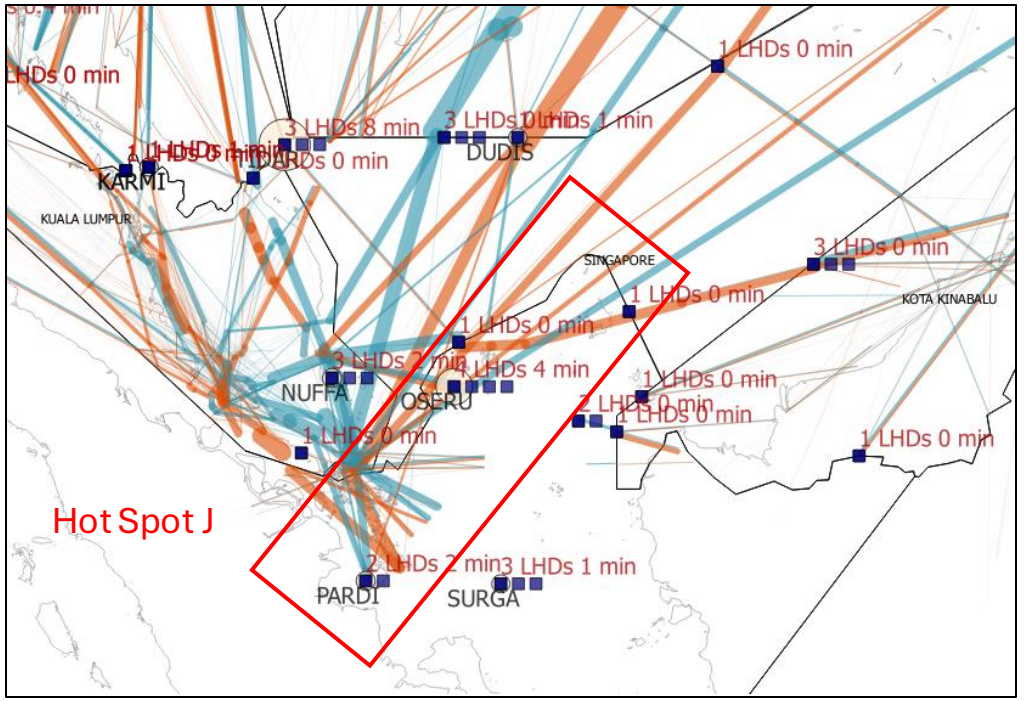
Mitigations:

- As of 21 March 2024, the FIR boundary between Jakarta and Singapore was realigned. To support the transition and maintain safety, the operational coordination meetings between both ACCs were regularly held since 2024, and planned to continue in 2025.
- The results of the LHD analysis were shared with controllers to enhance safety awareness.

Result from the hot spot identification process:

- Hot Spot J does not satisfy the hot spot criteria.
- In addition, the decrease in the number of LHDs and operational risk reflects the successful implementation of mitigation measures.
- Thus, **Hot Spot J is marked as a potential non-hotspot**.

Area	Number of LHDs			Operational Risk (10^{-9} FAPFH)		
	2022	2023	2024	2022	2023	2024
Jakarta/Singapore (Hot Spot J)	14	27	11	0.18	0.33	0.12



ASIA : LHD Hot Spot O

(Bangkok/Ho Chi Minh/Kuala Lumpur/Singapore)

Nature of Occurrences: Coordination errors as a result of human factors issues (Category E)

Contributing Factors: The route structure and ATC procedures of handling crossing traffic over this area can be complex due to the different Transfer of Control and Communication Points and the involvement of multiple ATS units.

Trend: The number of LHDs and operational risk decreased.

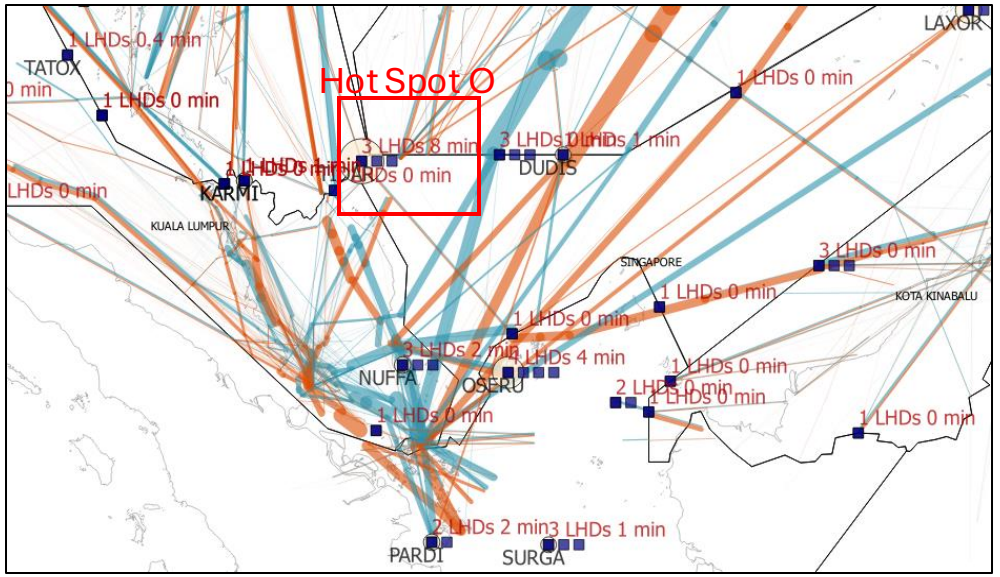
Mitigations:

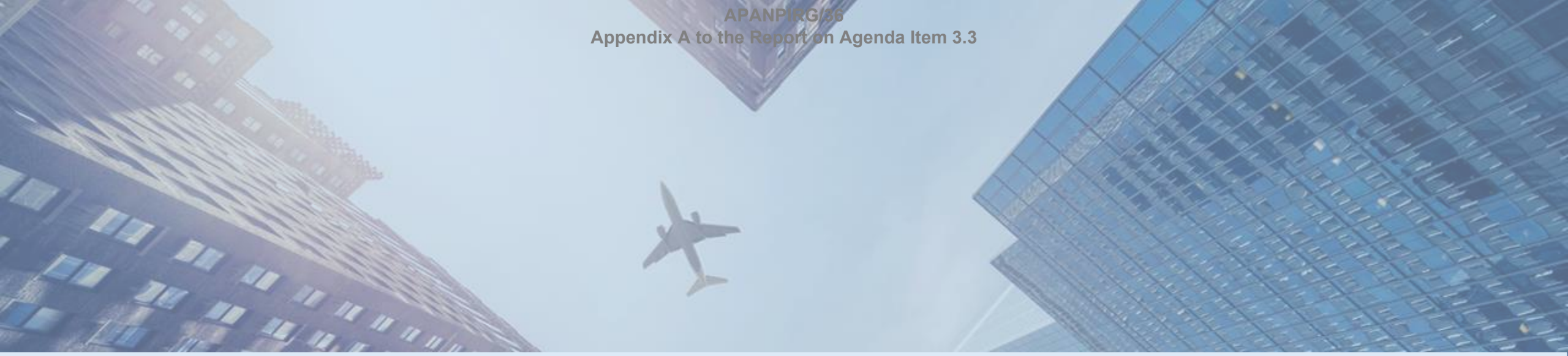
- Regular LHD analysis sharing with controllers and operational aids such as visual reminders on the Air Situational Display to enhance situational awareness have been implemented to mitigate the risk.
- Other collaborative improvement initiatives to prevent LHD occurrences are being explored.

Result from the hot spot identification process:

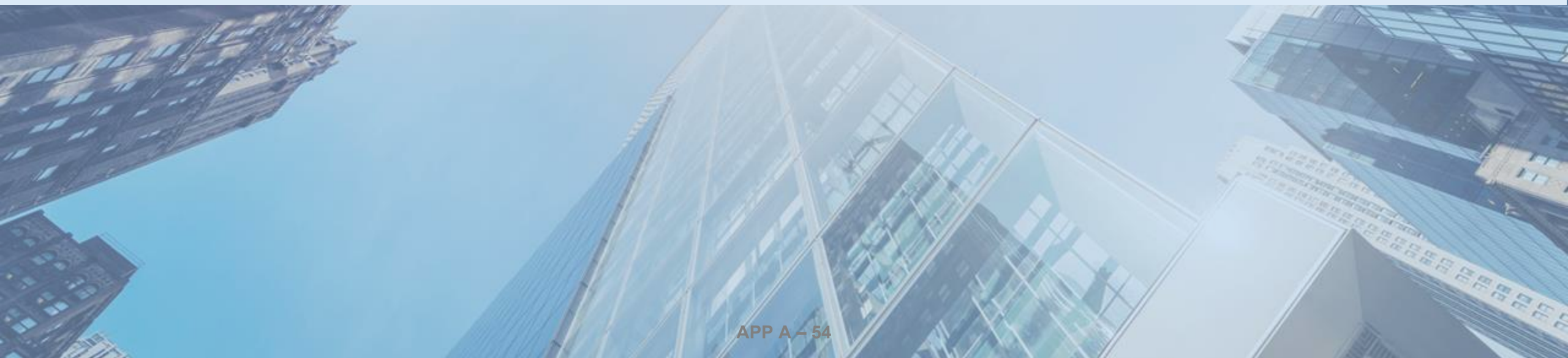
- Hot Spot O has satisfied the hot spot criteria in terms of the operational risk since 2022. Therefore, **Hot Spot O remains on the list of hot spots.**

Area	Number of LHDs			Operational Risk (10^{-9} FAPFH)		
	2022	2023	2024	2022	2023	2024
Hot Spot O (Bangkok/Ho Chi Minh /Kuala Lumpur/ Singapore)	7	5	3	0.58	0.51	0.15





Reporting Rate of LHDs/LLDs/LLEs



Reporting Rate of LHDs/LLDs/LLEs in 2024

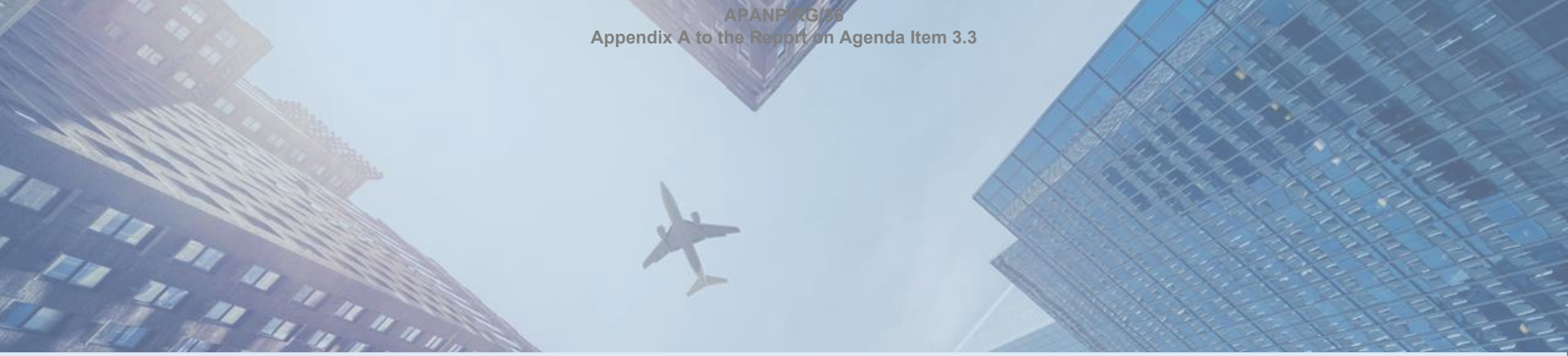
Airspace	Flying Hours	Aircrew/Pilot		ATC		Other		Total	
		# Reports	1 Report : Flying Hrs	# Reports	1 Report : Flying Hrs	# Reports	1 Report : Flying Hrs	# Reports	1 Report : Flying Hrs
DPRK	-	0	-	0	-	0	-	0	-
Mongolia	103,477	0	-	0	-	0	-	0	-
SEA	3,108,056	0	-	74	1: 42,001	0	-	74	1: 42,001
Japan	1,929,397	24	1:80,392	10	1: 192,940	42	1: 45,938	76	1: 25,387
SA/IO	4,143,123	3	1:1,381,041	194	1: 21,356	7	1: 591,875	204	1: 20,309
SW Pacific	1,245,193	35	1:35,577	25	1: 49,808	11	1: 113,199	71	1: 17,538
China	2,878,308	11	1:261,664	19	1: 151,490	160	1: 17,989	190	1: 15,149
Pacific	1,933,809	62	1:31,190	169	1: 11,443	3	1: 644,603	234	1: 8,264
Indonesia	548,638	18	1:30,480	84	1: 6,531	0	-	102	1: 5,379
ROK and AKARA	197,566	0	-	123	1: 1,606	3	-	126	1: 1,568
Total	16,087,567	153	1:105,147	689	1: 23,048	226	1: 71,184	1,077	1: 14,937

Note:

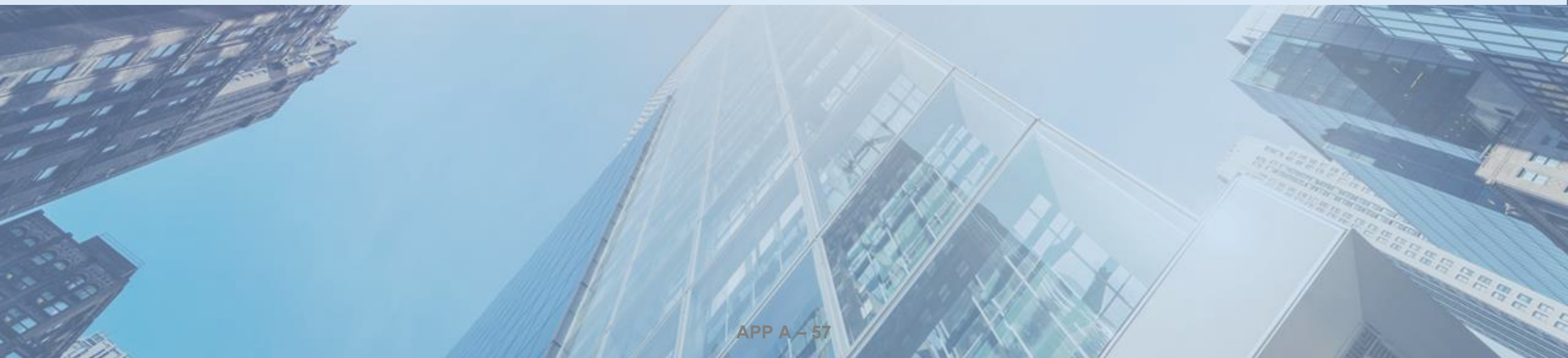
- There was no flying hours for DPRK in 2024, as no aircraft operated in its RVSM airspace.
- Both DPRK and Mongolia submitted NIL reports for all months in 2024.

Reporting Rate of LHDs/LLDs/LLEs in 2024

Airspace	# Reports							1 Report : Flying Hours						
	2018	2019	2020	2021	2022	2023	2024	2018	2019	2020	2021	2022	2023	2024
DPRK	0	0	0	0	0	0	0	-	-	-	-	-	-	-
Mongolia	1	2	0	1	0	0	0	1: 158,891	1: 82,138	-	1: 121,621	-	-	-
SEA	205	152	42	70	62	101	74	1: 17,757	1: 22,275	1: 25,106	1: 15,456	1:32,620	1:29,400	1: 42,001
Japan	76	77	66	80	75	72	76	1: 20,632	1: 20,762	1: 14,737	1: 13,528	1:18,751	1:23,452	1: 25,387
SA/IO	681	439	152	135	143	258	204	1: 3,783	1: 7,955	1: 7,907	1: 11,167	1:21,018	1:10,242	1: 20,309
SW Pacific	53	101	46	47	81	65	71	1: 17,817	1: 9,335	1: 6,954	1: 11,975	1:5,352	1:18,186	1: 17,538
China	110	79	85	105	72	223	190	1: 22,229	1: 31,119	1: 26,867	1: 15,477	1:18,003	1:10,525	1:15,149
Pacific	43	173	134	176	179	203	234	1: 45,064	1: 10,139	1: 6,404	1: 6,638	1:8,280	1:8,736	1:8,264
Indonesia	23	37	18	41	54	125	102	1: 53,603	1: 33,321	1: 17,346	1: 7,402	1:8,060	1:6,099	1:5,379
ROK and AKARA	12	34	5	24	108	75	126	1: 28,365	1: 18,959	1: 25,965	1: 6,285	1:1,056	1:2,220	1:1,568
Total	**1,204**	**1,094**	**548**	**679**	**774**	**1,122**	**1,077**	**1: 12,332**	**1: 14,330**	**1: 13,202**	**1: 11,200**	**1:13,230**	**1:12,135**	**1:14,937**



Conclusion



RVSM TLS Compliance - Vertical

- **The 2024 PAC vertical overall risk is 15.53 x 10^{-9} FAPFH, above the TLS,**
  driven by Hot Spot N (Hawaii CEP/Oakland, USA). To address this hot spot, the responsible units have implemented mitigation procedures and are planning an ATM system upgrade, scheduled to be implemented in 2027.
- **The 2024 ASIA vertical overall risk is 1.99 x 10^{-9} FAPFH, below the TLS.**

RVSM TLS Compliance - Horizontal

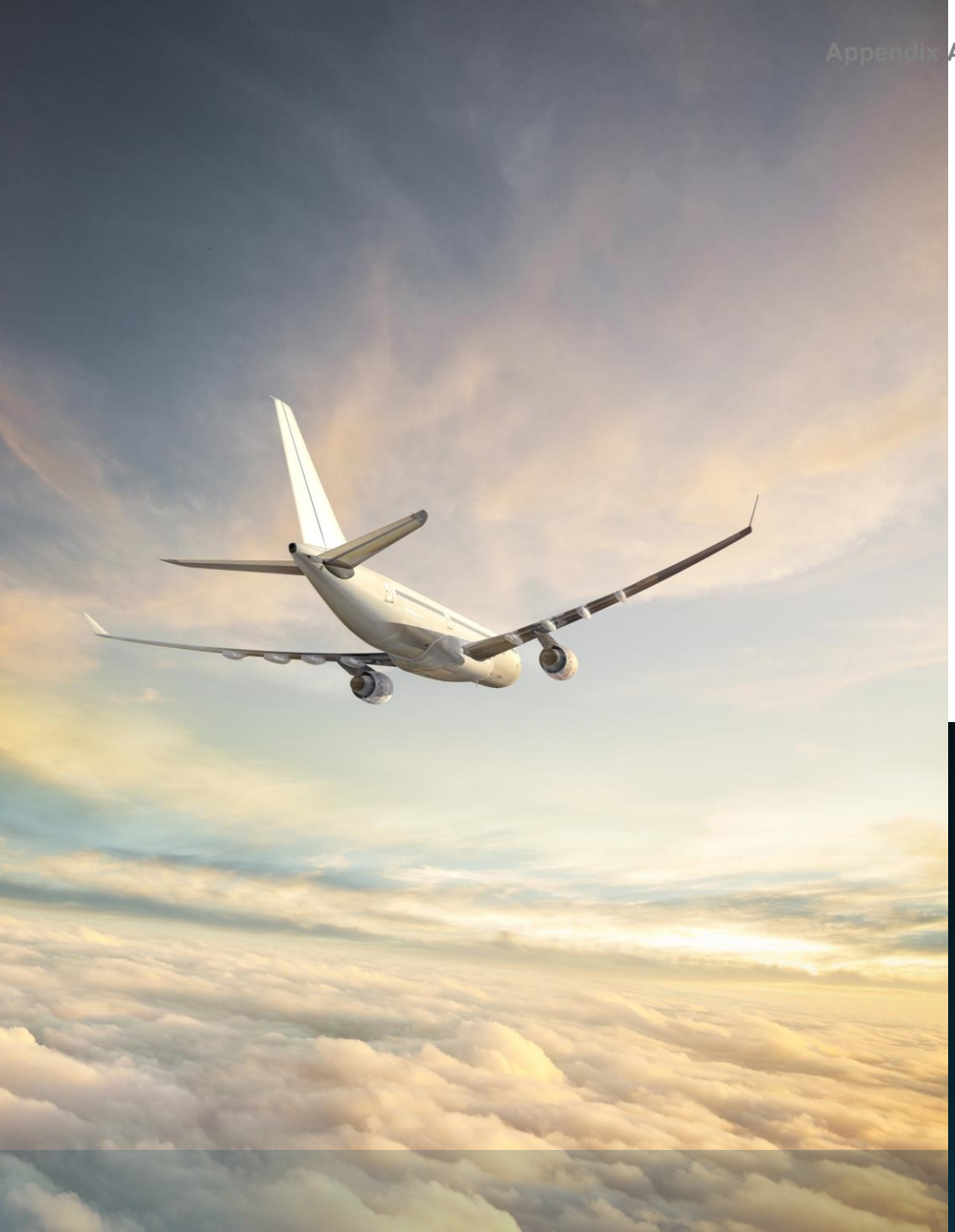
- **All horizontal risk estimates in 2024 are below the TLS.**

RASMAG's Hot Spot List

Hot Spot	Involved FIRs	Identified	Remarks
A1	Chennai/Dhaka/Kolkata/Yangon	2015	Cat. E LHDs and risk decreasing.
B1	Incheon (Transfer-of-Control Point between Incheon ACC and Shanghai ACC)	2015	Cat. E LHDs increasing. Risk decreasing.
D1	Fukuoka/Manila	2015	Cat. E steady; risk decreasing. Mitigation in place. **Potential non-hotspot**.
D5	Ho Chi Minh/Manila	2015	Cat. E LHDs and risk slightly increasing.
D7	Kota Kinabalu/Manila	2015	Cat. E LHDs slightly increasing. Risk slightly decreasing.
D8	Manila/Ujung Pandang	2015	Cat. E LHDs and risk decreasing. Mitigation in place. **Potential non-hotspot**.
F	Mogadishu/Mumbai	2015	Cat. E LHDs decreasing. Risk slightly increasing
G1	Mumbai/Muscat	2015	Cat. E LHDs slightly decreasing. Risk decreasing.
G2	Mumbai/Sanaa	2015	Cat. E LHDs slightly increasing. Risk decreasing.
J	Jakarta/Kota Kinabalu/Singapore	2018	Cat. E LHDs and risk decreasing. Mitigation in place. **Potential non-hotspot**.
N	Hawaii CEP/Oakland USA	2019	Cat. E LHDs and risk slightly increasing.
O	Bangkok/Ho Chi Minh/Kuala Lumpur/ Singapore	2023	Cat. E LHDs and risk decreasing.

Reporting Rate of LHDs/LLDs/LLEs

- **The estimated flying hours significantly increased** from
  13,615,545 hours in 2023 to
  16,087,567 hours in 2024.
- **The overall reporting rate of LHDs/LLDs/LLEs slightly degraded**, from
  1 report per 12,135 hours in 2023 to
  1 report per 14,937 hours in 2024.
- The reporting rate for **SEA, China, and SA/IO significantly dropped in 2024** due to the decrease in the number of LHDs with the increase in flying hours.
- The reporting rates for **other areas in 2024** were **close to 2023 values**.
- The reporting rate for **DPRK could not be calculated**, as there were no flying hours and no reported occurrence. No aircraft operated in DPRK's RVSM airspace in 2023 and 2024, and DPRK submitted NIL reports for all months in 2024.
- The reporting rate for **Mongolia could not be calculated**, as no occurrence were reported. Mongolia submitted NIL reports for all months in 2024.



THANK YOU

Thirtieth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/30)
Bangkok, Thailand
14 – 17 July 2025

Link for RASMAG meeting:
https://www.icao.int/APAC/Meetings/Pages/2025-RASMAG-30.aspx

Business Functionality of APAC Common SWIM Information Services
(Updated by MET SG/28, FF-ICE/2, MET/IE WG/23, SURICG/10, AAITF/19 and ATFM SG/15)

First Version (May 2025)

(Editorial note – changes arising from MET SG/28, FF-ICE/2, MET/IE WG/23, SURICG/10, AAITF/19 and ATFM SG/15 are indicated with ~~strikethrough~~ and highlighted text.)

Purpose.– This list of APAC Common SWIM Information Services, including associated priorities, provides States/Administrations with guidance on anticipated services to support their planning and implementation of SWIM.

Notes.– Priority of Recommended ~~s~~Services in ~~i~~Initial APAC Common SWIM Information Service (IS) ((1)/(2)/(3)):

- Priority (1): Recommended for region-wide implementation for region-wide benefits
- Priority (2): Recommended for implementation as much as practicable
- Priority (3): Additional information services without common regional requirements and not included as a part of common regional information services

Business functionality of the information service	**Brief description of the service**	**Type of information to be exchanged**	**Information exchange model / Message type**	**Message exchange pattern**	**Priority ~~of Recommended sService in iInitial APAC Common SWIM IS~~ (1) / (2) / (3)**
APAC Common SWIM Aeronautical Information Services					
Airspace management service	Exchanges of airspace status information between ASM Support System and Air Traffic Control (ATC) System. The sharing of airspace availability and airspace structure in real-time will contribute to a more efficient execution of the flight as information impacting the trajectory will be exchanged.	~~Airspace availability,~~ Availability or activation/deactivation or temporarily change of airspace, restricted area, danger area, search and rescue regions	AIXM	Pub/Sub or Req Reply	2

Business functionality of the information service	**Brief description of the service**	**Type of information to be exchanged**	**Information exchange model / Message type**	**Message exchange pattern**	**Priority ~~of~~ ~~Recommended sService in iInitial APAC Common SWIM IS~~ (1) / (2) / (3)**
Airspace feature service	Provides the characteristics of the three-dimensional airspace, described as horizontal projection with vertical limits, and their relevance to air traffic.	FIR/UIR boundaries, waypoints, enroute ATS routes, SIDs and STARs, navaids, procedures, and other airspace not limited to restricted area, prohibited area, danger area, search and rescue regions (Remarks – Other data published in the AIP may be included)	AIXM	Pub/Sub or Req Reply	2
Aerodrome feature service	Provides current and/or planned airport layout features, such as aerodrome mapping data, runway, taxiway, passenger facilities.	Runways, movement areas, aerodrome services, navaids, instrument landing systems, Aerodrome location, communication facilities (frequencies)	AIXM	Pub/Sub or Req Reply	2
Runway Condition Report service	Provides runway surface conditions and contaminants (least to most slippery) that are directly correlated to aircraft take-off and landing performance.	Global Reporting Format (GRF) for runway surface conditions	AIXM	Pub/Sub or Req/Reply	2
Digital NOTAM distribution service	Provides aeronautical information in accordance with the Digital NOTAM Specification, such as runway closure.	Digital NOTAM (e.g. Special activity airspace (SAA) NOTAMs, or other types of NOTAMs)	AIXM	Pub/Sub or Req Reply	2
APAC Common SWIM Flight Information Services					
GUFI service	GUFI (Globally Unique Flight Identifier) generation and provision	GUFI	FIXM	Req/Reply	1
~~ATFM/A-CDM integrated service~~	~~Allows exchanges of flight plans and A-CDM milestone parameters among different stakeholders (such as arrival/departure ATFM units, airlines and~~	~~CLDT, TOBT, CTOT, CTO, TTOT, TSAT, etc.~~	~~FIXM~~	~~Pub/Sub Req/Reply~~	~~1~~

Business functionality of the information service	Brief description of the service	Type of information to be exchanged	Information exchange model / Message type	Message exchange pattern	Priority ~~of Recommended sService in iInitial APAC Common SWIM IS~~ (1) / (2) / (3)
	~~airport operators) to connect A-CDM process to ATFM operations.~~				
FF-ICE filing service	Provides a means to submit, update or cancel flight plans through a SWIM-based interface using FIXM.	Flight plan for registration, update or cancellation	FIXM	Req/Reply Pub/Sub	1
FF-ICE ~~data~~ publication service	Provides harmonised sharing of flight ~~plan~~ information in a global standard supporting common situation awareness.	Flight ~~plan~~ information for publication	FIXM	Pub/Sub	2
FF-ICE trial service	Allows operators to test the effect of a potential change in a flight plan prior to committing to the change.	Proposed changes in a flight plan	FIXM	Req/Reply	2
FF-ICE flight data request service	Allows an operator to request the current status of a flight plan, or an ANSP can request an operator to submit the latest version of their flight plan.	Current status of a flight plan, a copy of flight plan or supplementary plan	FIXM	Req/Reply	1
FF-ICE notification service	Provides notification of a change in flight state, such as Departure (DEP) and Arrival (ARR) Air Traffic Service (ATS) messages.	ARR, DEP messages	FIXM	Pub/Sub Req/Reply	1
FF-ICE planning service	Allows operators to submit preliminary flight plans for early Air Traffic Flow Management (ATFM) planning and to obtain feedback regarding restrictions/constraints affecting the flight.	Preliminary flight plan for early ATFM planning	FIXM	Req/Reply Pub/Sub	2
Flight-Specific ATFM Measure Service	Supports *notification* of information related to "flight-specific" ATFM measures, i.e. measures whose control mechanisms apply to a single flight. An	CTOT, CTO, CLDT, and fields currently included in APAC	FIXM	Pub/Sub Req/Reply	1

Business functionality of the information service	Brief description of the service	Type of information to be exchanged	Information exchange model / Message type	Message exchange pattern	Priority ~~of Recommended sService in iInitial APAC Common SWIM IS~~ (1) / (2) / (3)
	example is the Ground Delay Program (GDP), whose control mechanism is a Calculated Take-Off Time (CTOT), or an ATFM measure for airborne flight, whose control mechanism is a Calculated Time Over (CTO). Recipients of this information should take actions to comply with the ATFM measure contained herein.	AFTN/AMHS-Based ICD for ATFM[1]			
ATFM/A-CDM Integration Service	Supports exchanges of flight-specific ATFM measure information and A-CDM milestone parameters among stakeholders, including arrival/departure ATFM units, airspace users, and airport operators, to integrate A-CDM process with ATFM operations.	ATFM measure information: CTOT A-CDM departure planning information: TOBT, TTOT, TSAT	FIXM	Pub/Sub Req/Reply	1
APAC Common SWIM Meteorological Information Services					
FOR AERODROME					
METAR/SPECI ~~information~~ service	Provides ~~of~~ IWXXM-formatted METAR/SPECI product specified in ICAO Annex 3.	Provision of the existing Annex 3 product via an information service ~~in Annex 3. Information service will be enabled through Amendment 81 to Annex 3 as recommended practice with applicability from Nov 2024.~~	IWXXM	Pub/Sub Req/Reply	1
TAF ~~information~~ service	Provides ~~of~~ IWXXM-formatted TAF product specified in ICAO Annex 3.		IWXXM	Pub/Sub Req/Reply	1
Aerodrome Meteorological	Provides continuous observations of weather parameters at an aerodrome. Advanced		IWXXM	Pub/Sub or Req/Reply	2*

[1] Based on the conclusion from ATFM/SG/15, an amendment to this ICD will be proposed in which a more structured use of REGUL and REGCAUSE fields will be introduced. This proposal is expected to be tabled at the upcoming CNS/SG meeting.
* Will become Priority (1) when it is introduced as recommended practice in Annex 3 tentatively in Nov 2030

Business functionality of the information service	**Brief description of the service**	**Type of information to be exchanged**	**Information exchange model / Message type**	**Message exchange pattern**	**Priority ~~of~~ ~~Recommended sService in iInitial APAC Common SWIM IS~~ (1) / (2) / (3)**
Observation Information Service ~~observation information service~~	meteorological SWIM (MET-SWIM) service being developed by MET Panel.	To be introduced as recommended practice in Annex 3 (Amd 84~~83~~) in Nov 2030~~2027~~ tentatively (Note: Level of standardisation needs to be considered, as different aerodrome information services may be required for different use cases.)			
Aerodrome Meteorological Forecast Information Service ~~forecast information service~~	Provides information of the expected meteorological conditions, including probability, at an airport during a specified period. Advanced meteorological SWIM (MET-SWIM) service being developed by MET Panel.		IWXXM	Pub/Sub or Req/Reply	2*
FOR ENROUTE					
SIGMET ~~information~~ service	Provides ~~of~~ IWXXM-formatted SIGMET product specified in ICAO Annex 3.	SIGMETs for thunderstorm, tropical cyclone, turbulence, icing, mountain wave, duststorm, sandstorm, volcanic ash and radioactive cloud	IWXXM	Pub/Sub Req/Reply	1
AIRMET ~~information~~ service	Provides ~~of~~ IWXXM-formatted AIRMET product specified in ICAO Annex 3.	Provision of the existing Annex 3 product via an information service	IWXXM	Pub/Sub Req/Reply	~~1~~2
Tropical Cyclone Advisory ~~information~~ service	Provides ~~of~~ IWXXM-formatted Tropical Cyclone Advisory product specified in ICAO Annex 3. (Designated provider: States with Tropical Cyclone Advisory Centre)		IWXXM	Pub/Sub Req/Reply	1
Volcanic Ash Advisory ~~information~~ service	Provides ~~of~~ IWXXM-formatted Volcanic Ash Advisory product specified in ICAO Annex 3. (Designated provider: States with Volcanic Ash Advisory Centre)		IWXXM	Pub/Sub Req/Reply	1
Space Weather Advisory ~~information~~ service	Provides ~~of~~ IWXXM-formatted Space Weather Advisory product specified in ICAO Annex 3.		IWXXM	Pub/Sub Req/Reply	1

Business functionality of the information service	Brief description of the service	Type of information to be exchanged	Information exchange model / Message type	Message exchange pattern	Priority ~~of~~ ~~Recommended sService in iInitial APAC Common SWIM IS~~ (1) / (2) / (3)
	(Designated provider: States with Space Weather Advisory Centre)				
Volcano Observatory Notice for Aviation (VONA) ~~information~~ service	Provides ~~of~~ IWXXM-formatted VONA specified in ICAO Annex 3. Provision of VONA ~~will become the~~ is a recommended practice in Annex 3 (Amd 82) ~~in 2025~~. (Designated provider: States with a designated State Volcano Observatory)		IWXXM	Pub/Sub Req/Reply	2
Quantitative volcanic ash ~~(QVA)~~ concentration information (QVA) service	Provides detailed information of significant volcanic ash in the atmosphere, including probabilities of ash concentration thresholds over space and time. Advanced meteorological SWIM (MET-SWIM) service being developed by MET Panel. (Designated provider: States with ~~VAAC~~ Volcanic Ash Advisory Centre (VAAC))	QVA ~~grids grid point~~ gridded forecasts including probabilities~~,~~ and IWXXM QVA objects. ~~To be introduced as~~ A recommended practice for significant ash clouds in Annex 3 (Amd 82) ~~in Nov 2025 tentatively~~ for VAACs in a position to do so from Nov 2025, and for all VAACs from Nov 2026.	Gridded data (e.g. NetCDF), IWXXM	Pub/Sub ~~or~~ Req/Reply	~~1~~2[#]
WAFC (World Area Forecast Centres) gridded ~~grid point~~ forecast service	Provides global gridded weather forecasts. (Designated provider: WAFCs (UK and US))	Global gridded forecasts of CB, icing, turbulence, upper winds, upper-air temperatures and humidity, flight level and temperature of tropopause, and direction, speed and flight level of maximum wind	Gridded data in GRIB2	Pub/Sub ~~or~~ Req/Reply	1
WAFC significant weather (SIGWX) forecast service	Provides global WAFC SIGWX data sets with coverage expressed in polygons.	Significant weather forecast such as tropical cyclone, ~~severe squall lines,~~ turbulence, icing, etc.	IWXXM	Pub/Sub ~~or~~ Req/Reply	1

[#] Will become Priority (1) from Nov 2026

Business functionality of the information service	**Brief description of the service**	**Type of information to be exchanged**	**Information exchange model / Message type**	**Message exchange pattern**	**Priority ~~of~~ ~~Recommended sService in iInitial APAC Common SWIM IS~~ (1) / (2) / (3)**
	(Designated provider: WAFCs (UK and US))				
Satellite image service	Provides satellite observational information.	Satellite derived MET information (e.g. significant convection)	Gridded format (e.g. NetCDF) and image format	Req/Reply	2
Weather radar image service	Provides two- or three-dimensional radar observational information.	Weather radar reflectivity to visualise the intensity of convection	Gridded format (e.g. NetCDF) and image format	Req/Reply	2
APAC Common SWIM Surveillance Information Services					
Surveillance data **only** sharing service	Provides surveillance data of aircraft. ~~Provides three-dimensional position, time and identification of aircraft and other data as appropriate.~~	~~Position~~ latitude, longitude, ~~altitude,~~ flight level, ground speed (optional), ~~track angle,~~ magnetic heading (optional), ~~call sign, Mode S address,~~ target identification, target address, **mode 3/A code** (optional), **date**, time of message reception for position, ~~data quality~~, quality indicators, ~~Mode S DAP~~, **SAC, SIC**	ASTERIX Cat 21 (payload in JSON or RAW format)	Pub/Sub	~~2~~1
Surveillance data with flight plan information sharing service	Provides surveillance data of aircraft with flight plan information.	globally unique flight identifier, aircraft identification, departure aerodrome, destination aerodrome, aircraft type (optional), wake turbulence category **(optional)** latitude, longitude, flight level, ground speed **(optional)**,	ASTERIX Cat 21+FPL (payload in JSON or RAW format)	Pub/Sub	2

Business functionality of the information service	**Brief description of the service**	**Type of information to be exchanged**	**Information exchange model / Message type**	**Message exchange pattern**	**Priority ~~of~~ ~~Recommended s~~Service in ~~i~~Initial ~~APAC Common SWIM IS~~ (1) / (2) / (3)**
		magnetic heading **(optional)**, target identification, target address, mode 3/A code **(optional)**, date, time of message reception for position, quality indicators, SAC, SIC			

FIXM version 4.3 Core Data Attributes to Support Cross-Border ATFM Information Exchange

Data Attribute	FIXM version 4.3 Core
EOBT (Estimated Off-Block Time)	FlightType.departure.estimatedOffBlockTime = (EOBT)
ETO (Estimated Time Over)	FlightType.routeTrajectoryGroup.desired.element.point4D.time = (ETO) FlightType.routeTrajectoryGroup.desired.element.elementStartPoint = (point at which ETO is specified)
ELDT (Estimated Landing Time)	FlightType.routeTrajectoryGroup.desired.element.point4D.time = (ELDT) FlightType.routeTrajectoryGroup.desired.element.point4D.pointProperty.propertyType = WHEELS_ON FlightType.routeTrajectoryGroup.desired.element.elementStartPoint.aerodromReferencePoint.locationIndicator = FlightType.arrival.destinationAerodrome.locationIndicator
EIBT (Estimated In-Block Time)	FlightType.routeTrajectoryGroup.desired.element.point4D.time = (EIBT) FlightType.routeTrajectoryGroup.desired.element.point4D.pointProperty.propertyType = IN_BLOCKS FlightType.routeTrajectoryGroup.desired.element.elementStartPoint.aerodromReferencePoint.locationIndicator = FlightType.arrival.destinationAerodrome.locationIndicator
CTOT (Calculated Take-Off Time)	FlightType.routeTrajectoryGroup.negotiating.element.constraint.time.timeSpecification.timeValue = (CTOT) FlightType.routeTrajectoryGroup.negotiating.element.point4D.pointProperty.propertyType = WHEELS_OFF FlightType.routeTrajectoryGroup.negotiating.element.elementStartPoint.aerodromReferencePoint.locationIndicator = FlightType.departure.aerodrome.locationIndicator
CTO (Calculated Time Over)	FlightType.routeTrajectoryGroup.negotiating.element.constraint.time.timeSpecification.timeValue = (CTO) FlightType.routeTrajectoryGroup.negotiating.element.elementStartPoint = (point at which CTO is specified)
CLDT (Calculated Landing Time)	FlightType.routeTrajectoryGroup.negotiating.element.constraint.time.timeSpecification.timeValue = (CLDT) FlightType.routeTrajectoryGroup.negotiating.element.point4D.pointProperty.propertyType = WHEELS_ON FlightType.routeTrajectoryGroup.negotiating.element.elementStartPoint.aerodromReferencePoint.locationIndicator = FlightType.arrival.destinationAerodrome.locationIndicator

Appendix B

FIXM version 4.3 Extension Data Attributes

Data Attribute	FIXM version 4.3
EOBT (Estimated Off-Block Time)	Core
ETO (Estimated Time Over)	Core
ELDT (Estimated Landing Time)	Core
EIBT (Estimated In-Block Time)	Core
CTOT (Calculated Take-Off Time)	Core
CTO (Calculated Time Over)	Core
CLDT (Calculated Landing Time)	Core
TOBT (Target Off-Block Time)	Extension
TSAT (Target Start-up Approval Time)	Extension
TTOT (Target Take-Off Time)	Extension
TTO (Target Time Over)	Extension
TIBT (Target In-Block Time)	Extension
AOBT (Actual Off-Block Time)	Extension
ATO (Actual Time Over)	Extension
AIBT (Actual In-Block Time)	Extension
Taxi time*	Extension
REGUL* (designation of the ATFM measure affecting the flight)	Extension
REGCAUSE* (reason for the ATFM measure)	Extension
REASON* (reason to explain an action by ATFM personnel, e.g. rejection, cancellation)	Extension
COMMENT* (additional information for ATFM purpose)	Extension

**For more information, refer to Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0*

Appendix C

APAC XSD Description

Namespace	Description
Apac	FIXM Extension containing data attributes to support cross-border Air Traffic Flow Management (ATFM) operations, the integration between ATFM and Airport-Collaborative Decision Making (A-CDM), and traffic synchronization in accordance with Distributed Multi-Nodal ATFM Network concept and the Airport-Collaborative Decision Making operations in the Asia/Pacific region.

Class	Definition	Reference/Remark
ApacDepartureType	Class containing flight data related to departure aerodrome	This class is to be included in extension field under DepartureType class.
Data Attribute	Definition	Reference/Remark
actualOffBlockTime	A time the aircraft is pushed back / vacates parking position (equivalent to airline/handlers ATD – Actual Time of Departure and ACARS=OUT)	ICAO Doc 9971 Manual on Collaborative ATFM, 3rd Edition, 2018
targetOffBlockTime	A time that an Aircraft Operator or Ground Handler estimates that an aircraft will be ready to receive start-up approval/push-back clearance	ICAO Asia/Pacific Regional Framework for Collaborative ATFM, Version 4, October 2022
targetStartupApprovalTime	A time provided by ATC taking into account TOBT, CTOT, and/or the traffic situation that an aircraft can expect start-up/push back approval	ICAO Asia/Pacific Regional Framework for Collaborative ATFM, Version 4, October 2022
targetedTakeOffTime	A time that an aircraft is targeted to be airborne, taking into account TOBT, TSAT, and other factors such as EXOT, wake turbulence, SID, etc.	● ICAO Asia/Pacific Regional Framework for Collaborative ATFM, Version 4, October 2022 ● EUROCONTROL A-CDM Implementation Manual, Version 5.0, March 2017
taxiTime	The difference in time between the ‘off blocks time’ and the ‘take-off time’. The times referred to could be actual or estimated depending upon the context.	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0

Class	Definition	Reference/Remark

ApacArrivalType	Class containing flight data related to destination aerodrome	This class is to be included in extension field under ArrivalType class.
Data Attribute	Definition	Reference/Remark
actualInBlockTime	The time that an aircraft arrives in-blocks (equivalent to airline/handler ATA – actual time of arrival, ACARS = IN)	ICAO Doc 9971 Manual on Collaborative ATFM, 3rd Edition, 2018
targetInBlockTime	A time, calculated by an automation system, that an aircraft is expected to be at its first parking position	This time value is not EIBT (Estimated In-Block Time) – The estimated time that an aircraft will arrive in blocks (Ref. EUROCONTROL A-CDM Implementation Manual, Version 5.0, March 2017)

Class	Definition	Reference/Remark
ApacRouteTrajectoryElementType	Class containing flight data related to specific element	
Data Attribute	Definition	Reference/Remark
actualTimeOver	An actual time of the aircraft over a fix, waypoint, or particular location	
targetTimeOver	A time, calculated and issued by an ATS unit, that an aircraft is requested to be over a fix, waypoint, or particular location	Use case: a time progressively calculated and issued by arrival management (AMAN) system

Class	Definition	Reference/Remark
ApacRouteTrajectoryGroupContainerType	Class contains actual trajectory information	
Data Attribute	Definition	Reference/Remark
actual	A list of actual trajectory	

Class	Definition	Reference/Remark
ApacAtfmMeasureCodeType	Indication of the cause of the ATFM measure	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0, section 3.2.1.15(a)

Class	Definition	Reference/Remark
ApacAtfmMeasureLocationType	Indication of the constraint location for which the ATFM measure is implemented	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0, section 3.2.1.15(b)
Class	Definition	Reference/Remark
ApacDelayCodeType	Indication of IATA numeric delay code	Asia/Pacific Regional AFTN/AMHS-based Interface

		Control Documents for Air Traffic Flow Management, version 3.0, section 3.2.1.15(d)

Class	Definition	Reference/Remark
ApacRegulationConstraintAreaType	Area of constraint. Format: [A-Z]{4}	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0

Class	Definition	Reference/Remark
ApacRegulationConstraintLocationType	Location of constraint. Format: [A-Z0-9]{1,5}	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0

Class	Definition	Reference/Remark
ApacRegulationCauseType	Class contains the cause of the ATFM measure	This is equivalent to REGCAUSE field in the Slot Allocation Message (SAM) as per Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0
Data Attribute	Definition	Reference/Remark
atfmMeasureCode	Indication of the cause of the ATFM measure	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0, section 3.2.1.15(a)
atfmMeasureLocation	Indication of the constraint location for which the ATFM measure is implemented	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0, section 3.2.1.15(b)
iataDelayCode	Indication of IATA numeric delay code	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0, section 3.2.1.15(d)

Class	Definition	Reference/Remark
ApacRegulationIdType	Class contains the designation of the ATFM measure	This is equivalent to REGUL field in the Slot Allocation

		Message (SAM) as per Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0
Data Attribute	Definition	Reference/Remark
effectiveDate	The date and month when the ATFM measure is effective	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0
version	The version of the designation of the ATFM measure	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0
constraintArea	A constrained area	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0
constraintLocation	A specific constrained location	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0

Class	Definition	Reference/Remark
ApacRouteTrajectoryConstraintType	Class contains the ATFM measure information	
Data Attribute	Definition	Reference/Remark
comment	Additional ATFM measure information	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0
reason	Reason to explain an action by the FMP (e.g. rejection, cancellation, etc.).	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0
regulationCause	The information indicates the reason for the ATFM measure to assist in post-operations analysis.	Asia/Pacific Regional AFTN/AMHS-based Interface Control Documents for Air Traffic Flow Management, version 3.0
regulationId	The information indicates the designation of the ATFM measure, including	Asia/Pacific Regional AFTN/AMHS-based Interface Control

	the specific location of the constraint, affecting the flight.	Documents for Air Traffic Flow Management, version 3.0

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema targetNamespace="http://www.fixm.aero/ext/apac/4.3"
xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:apac="http://www.fixm.aero/ext/apac/4.3"
xmlns:fx="http://www.fixm.aero/flight/4.3" xmlns:fb="http://www.fixm.aero/base/4.3"
elementFormDefault="qualified" version="4.3.0">
	<xs:annotation>
		<xs:documentation>The Apac package contains information used in Asia Pacific
region.</xs:documentation>
	</xs:annotation>
	<xs:import namespace="http://www.fixm.aero/flight/4.3"
schemaLocation="../../core/flight/Flight.xsd"/>
	<xs:import namespace="http://www.fixm.aero/base/4.3"
schemaLocation="../../core/base/Base.xsd"/>
	<xs:import namespace="http://www.fixm.aero/base/4.3"
schemaLocation="../../core/base/Types.xsd"/>
	<xs:import namespace="http://www.fixm.aero/base/4.3"
schemaLocation="../../core/base/Extension.xsd"/>
	<xs:import namespace="http://www.fixm.aero/flight/4.3"
schemaLocation="../../core/flight/flightroutetrajectory/RouteTrajectory.xsd"/>
	<xs:simpleType name="ApacAtfmMeasureCodeType">
		<xs:annotation>
			<xs:documentation>Indication of the cause of the ATFM measure, based on
APAC AFTN/AMHS-Based ICD for ATFM v3.0, section 3.2.1.15(a).</xs:documentation>
		</xs:annotation>
		<xs:restriction base="xs:string">
			<xs:enumeration value="A"/>
			<xs:enumeration value="C"/>
			<xs:enumeration value="E"/>
			<xs:enumeration value="G"/>
			<xs:enumeration value="I"/>
			<xs:enumeration value="M"/>
			<xs:enumeration value="N"/>
			<xs:enumeration value="O"/>
			<xs:enumeration value="P"/>
			<xs:enumeration value="R"/>
			<xs:enumeration value="S"/>
			<xs:enumeration value="T"/>
			<xs:enumeration value="V"/>
			<xs:enumeration value="W"/>
		</xs:restriction>
	</xs:simpleType>
	<xs:simpleType name="ApacAtfmMeasureLocationType">
		<xs:annotation>
			<xs:documentation>Indication of the constraint location for which the ATFM
measure is implemented, based on APAC AFTN/AMHS-Based ICD for ATFM v3.0, section
3.2.1.15(b)</xs:documentation>
		</xs:annotation>
		<xs:restriction base="xs:string">
			<xs:enumeration value="A"/>
			<xs:enumeration value="D"/>
			<xs:enumeration value="E"/>
		</xs:restriction>
	</xs:simpleType>
	<xs:simpleType name="ApacDelayCodeType">
```

```
                <xs:annotation>
                        <xs:documentation>Indication of IATA numeric delay code, based on APAC
AFTN/AMHS-Based ICD for ATFM v3.0, section 3.2.1.15(d)</xs:documentation>
                </xs:annotation>
                <xs:restriction base="xs:string">
                        <xs:enumeration value="81"/>
                        <xs:enumeration value="82"/>
                        <xs:enumeration value="83"/>
                        <xs:enumeration value="84"/>
                        <xs:enumeration value="85"/>
                        <xs:enumeration value="86"/>
                        <xs:enumeration value="87"/>
                        <xs:enumeration value="88"/>
                        <xs:enumeration value="89"/>
                        <xs:enumeration value="98"/>
                        <xs:enumeration value="99"/>
                </xs:restriction>
        </xs:simpleType>
        <xs:simpleType name="ApacRegulationConstraintAreaType">
                <xs:restriction base="fb:CharacterStringType">
                        <xs:pattern value="[A-Z]{4}"/>
                </xs:restriction>
        </xs:simpleType>
        <xs:simpleType name="ApacRegulationConstraintLocationType">
                <xs:restriction base="fb:CharacterStringType">
                        <xs:pattern value="[A-Z0-9]{1,5}"/>
                </xs:restriction>
        </xs:simpleType>
        <xs:complexType name="ApacRegulationCauseType">
                <xs:annotation>
                        <xs:documentation>Class contains the cause of the ATFM measure. This is
equivalent to REGCAUSE field in the Slot Allocation Message (SAM) as per the APAC
AFTN/AMHS-Based ICD for ATFM v3.0</xs:documentation>
                </xs:annotation>
                <xs:sequence>
                        <xs:element name="atfmMeasureCode"
type="apac:ApacAtfmMeasureCodeType" minOccurs="1" maxOccurs="1"/>
                        <xs:element name="atfmMeasureLocation"
type="apac:ApacAtfmMeasureLocationType" minOccurs="1" maxOccurs="1"/>
                        <xs:element name="iataDelayCode" type="apac:ApacDelayCodeType"
minOccurs="1" maxOccurs="1"/>
                </xs:sequence>
        </xs:complexType>
        <xs:complexType name="ApacRegulationIdType">
                <xs:annotation>
                        <xs:documentation>Class contains the designation of the ATFM measure.
This is equivalent to REGUL field in the Slot Allocation Message (SAM) as per the APAC
AFTN/AMHS-Based ICD for ATFM v3.0</xs:documentation>
                </xs:annotation>
                <xs:sequence>
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maxOccurs="1"/>
                        <xs:element name="version" type="xs:int" minOccurs="1"
maxOccurs="1"/>
```

```
                        <xs:element name="constraintArea"
type="apac:ApacRegulationConstraintAreaType" minOccurs="1" maxOccurs="1"/>
                        <xs:element name="constraintLocation"
type="apac:ApacRegulationConstraintLocationType" minOccurs="0" maxOccurs="1"/>
                </xs:sequence>
        </xs:complexType>
        <xs:complexType name="ApacRouteTrajectoryConstraintType">
                <xs:annotation>
                        <xs:documentation>Class contains the ATFM measure
information</xs:documentation>
                </xs:annotation>
                <xs:complexContent>
                        <xs:extension base="fb:RouteTrajectoryConstraintExtensionType">
                                <xs:sequence>
                                        <xs:element name="comment"
type="fb:CharacterStringType" minOccurs="0" maxOccurs="1"/>
                                        <xs:element name="reason" type="fb:CharacterStringType"
minOccurs="0" maxOccurs="1"/>
                                        <xs:element name="regulationCause"
type="apac:ApacRegulationCauseType" minOccurs="1" maxOccurs="1"/>
                                        <xs:element name="regulationId"
type="apac:ApacRegulationIdType" minOccurs="0" maxOccurs="2000"/>
                                </xs:sequence>
                        </xs:extension>
                </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="ApacArrivalType">
                <xs:annotation>
                        <xs:documentation>Class containing flight data related to destination
aerodrome. This class is to be included in extension field under ArrivalType
class.</xs:documentation>
                </xs:annotation>
                <xs:complexContent>
                        <xs:extension base="fb:ArrivalExtensionType">
                                <xs:sequence>
                                        <xs:element name="actualInBlockTime"
type="fb:DateTimeUtcType" minOccurs="0" maxOccurs="1" nillable="true"/>
                                        <xs:element name="targetInBlockTime"
type="fb:DateTimeUtcType" minOccurs="0" maxOccurs="1" nillable="true"/>
                                </xs:sequence>
                        </xs:extension>
                </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="ApacRouteTrajectoryElementType">
                <xs:complexContent>
                        <xs:extension base="fb:RouteTrajectoryElementExtensionType">
                                <xs:sequence>
                                        <xs:element name="actualTimeOver"
type="fb:DateTimeUtcType" minOccurs="0" maxOccurs="1" nillable="true"/>
                                        <xs:element name="targetTimeOver"
type="fb:DateTimeUtcType" minOccurs="0" maxOccurs="1" nillable="true"/>
                                </xs:sequence>
                        </xs:extension>
                </xs:complexContent>
```

```
	</xs:complexType>
	<xs:complexType name="ApacRouteTrajectoryGroupContainerType">
		<xs:annotation>
			<xs:documentation>Class contains actual trajectory
information</xs:documentation>
		</xs:annotation>
		<xs:complexContent>
			<xs:extension base="fb:RouteTrajectoryGroupContainerExtensionType">
				<xs:sequence>
					<xs:element name="actual"
type="fx:RouteTrajectoryGroupType" minOccurs="1" maxOccurs="1"/>
				</xs:sequence>
			</xs:extension>
		</xs:complexContent>
	</xs:complexType>
	<xs:complexType name="ApacDepartureType">
		<xs:annotation>
			<xs:documentation>Class containing flight data related to departure
aerodrome. This class is to be included in extension field under DepartureType
class</xs:documentation>
		</xs:annotation>
		<xs:complexContent>
			<xs:extension base="fb:DepartureExtensionType">
				<xs:sequence>
					<xs:element name="actualOffBlockTime"
type="fb:DateTimeUtcType" minOccurs="0" maxOccurs="1" nillable="true"/>
					<xs:element name="targetOffBlockTime"
type="fb:DateTimeUtcType" minOccurs="0" maxOccurs="1" nillable="true"/>
					<xs:element name="targetStartupApprovalTime"
type="fb:DateTimeUtcType" minOccurs="0" maxOccurs="1" nillable="true"/>
					<xs:element name="targetTakeOffTime"
type="fb:DateTimeUtcType" minOccurs="0" maxOccurs="1" nillable="true"/>
					<xs:element name="taxiTime" type="fb:DurationType"
minOccurs="0" maxOccurs="1"/>
				</xs:sequence>
			</xs:extension>
		</xs:complexContent>
	</xs:complexType>
</xs:schema>
```

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE CNS FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirement	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action**
Reliable ground to ground communication as specified in the regional Air Navigation Plan (Doc.9673) Tables CNS II-1; CNS II-2 & CNS II-3	Afghanistan and Pakistan	Unreliability of AFS communication between Afghanistan and Pakistan was brought to the notice of APANPIRG/21. Lack of reliability in the AFS including data communication between Kabul and Karachi and ATS voice communication between Lahore and Kabul was identified.	September 2010	A follow-up COM coordination meeting held in July 2019 discussed way forward	1. Site visits in Pakistan by an expert from the VSAT service provider were made in February and March 2016. Remedial recommendations were provided to CAA. Pakistan. Pakistan requested ICAO to provide assistance in establishing a VSAT link in 2022. 2. Both Afghanistan and Pakistan agreed to as first step to recover the VSAT connection by upgrading terminals in Lahore and Karachi. Afghanistan will provide assistance and does the Network Configuration settings; 3. A VPN link was established between Karachi and Kabul through UK. Now the VPN link between UK and Kabul is un-serviceable. 4. Both States also agreed to implement CRV as soon as practical to resolve the existing COM deficiencies. 5.Pakistan has joined CRV and is actively coordinating with Afghanistan to restore the communication link between Afghanistan and Pakistan. Pakistan is expected to restore the connection by the end of 2024. 6. **CNS SG/29 (16-20 June 2025)-** The AFS communication link between Pakistan and Afghanistan remains non-	CAA. Afghanistan and CAA. Pakistan **# Note: *Pakistan has done significant efforts to take corrective action to resolve this deficiency.***	End of 2024 No dates can be shared from Pakistan – CNS SG/29 (16-20 June 2025)	A

Identification		Deficiencies			Corrective Action			
Requirement	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action**
					operational due to the absence of a functioning AFS system on the Afghanistan side. Pakistan is fully prepared and available to activate the link as soon as Afghanistan establishes the required AFS infrastructure. Afghanistan had not given any tentative timelines. Therefore, it was requested that this deficiency be removed from Pakistan's side. 7. APANPIRG/36 (24-26 November 2025) noted the request and decided to keep both parties, as two parties are involved in establishing reliable AFS communication. However, a note was added in the column "Executing body" under "Corrective Action" acknowledging Pakistan's efforts to resolve the deficiency by establishing the COM link by joining CRV. Due to the absence of a non-functioning AFS system on the Afghanistan side, the matter cannot be progressed further.			

ATM and Airspace Safety Deficiencies List (Updated 21 October 2025)

	Deficiencies			Corrective Action		
States/facilities	**Description**	**Date first reported**	**Remarks**	**Executing body**	**Target date**	**Priority ****
	WGS-84 Requirements of Paragraph 1.2.1 of Annex 15					
Afghanistan	WGS-84 - Not implemented	24/6/2014		Afghanistan	TBD	A
Brunei Darussalam	WGS-84 - Not implemented	24/6/2014		Brunei Darussalam	31/12/2025	A
Marshall Islands	WGS-84 - Not implemented	24/6/2014		Marshall Islands	TBD	A
Micronesia	WGS-84 - Not implemented	24/6/2014		Micronesia	TBD	A
Nauru	WGS-84 - Not implemented		Conferring with consultant	Nauru	TBD	A
Palau	WGS-84 - Not implemented	24/6/2014		Palau	TBD	A
Samoa	WGS-84 - Not implemented	24/6/2014		Samoa	TBD	A
Vanuatu	WGS-84 – Not implemented	2/7/1999	Implemented at main airports	Vanuatu	1999	A
	AIP Format Requirements of Chapter 5 of Annex 15					
Kiribati	AIP Format - Not implemented	7/7/99	ATM/AIS/SAR/SG/18 (June 2009) was advised AIP in draft stage	Kiribati		A
	AIS Quality Management System Requirements of Paragraph 3.6.1 of Annex 15 Quality Management System - Not implemented					
Afghanistan	AIS Quality Management System - Not implemented	24/6/2014		Afghanistan	TBD	A
Bangladesh	AIS Quality Management System - Not implemented	24/6/2014		Bangladesh	TBD	A

	Deficiencies			Corrective Action		
States/facilities	**Description**	**Date first reported**	**Remarks**	**Executing body**	**Target date**	**Priority ****
Bhutan	AIS Quality Management System - Not implemented	24/6/2014		Bhutan	TBD	A
Brunei Darussalam	AIS Quality Management System - Not implemented	24/6/2014		Brunei Darussalam	31/03/2026	A
Cambodia	AIS Quality Management System - Not implemented	24/6/2014		Cambodia	TBD	A
Kiribati	AIS Quality Management System - Not implemented	24/6/2014		Kiribati	TBD	A
Lao PDR	AIS Quality Management System - Not implemented	24/6/2014		Lao PDR	TBD	A
Maldives	AIS Quality Management System - Not implemented	24/6/2014		Maldives	30/09/2024	A
Marshall Islands	AIS Quality Management System - Not implemented	24/6/2014		Maldives	TBD	A
Micronesia	AIS Quality Management System - Not implemented	24/6/2014		Micronesia	TBD	A
Myanmar	AIS Quality Management System - Not implemented	9/6/2016		Myanmar	31/12/2025	A
Nauru	AIS Quality Management System - Not implemented	24/6/2014		Nauru	TBD	A
Nepal	AIS Quality Management System - Not implemented	24/6/2014		Nepal	TBD	A
Palau	AIS Quality Management System - Not implemented	24/6/2014		Palau	TBD	A
Samoa	AIS Quality Management System - Not implemented	24/6/2014		Samoa	TBD	A

	Deficiencies			Corrective Action		
States/facilities	**Description**	**Date first reported**	**Remarks**	**Executing body**	**Target date**	**Priority ****
Solomon Islands	AIS Quality Management System - Not implemented	24/6/2014		Solomon Islands	TBD	A
Timor-Leste	AIS Quality Management System - Not implemented	24/6/2014		Timor-Leste	TBD	A
Vanuatu	AIS Quality Management System - Not implemented	24/6/2014		Vanuatu	TBD	A
	Aeronautical Data Area of Responsibility - requirements of Paragraph 2.1.2 of Annex ~~2~~ 15 to ensure that the provision of aeronautical data and aeronautical information covers its own territory and those areas over the high seas for which it is responsible for the provision of ATS					
Bangladesh	Aeronautical Data Promulgation Within the State's Area of Responsibility - Not implemented	29/03/2019 SAIOACG/9		Bangladesh	TBD	A
	Designation of Restricted Areas - requirements of Annex 2 (Definitions) to ensure that restricted areas are designated above the land areas or territorial waters of a State					

	Deficiencies			Corrective Action		
States/facilities	**Description**	**Date first reported**	**Remarks**	**Executing body**	**Target date**	**Priority ****
~~Australia~~	~~Designation of Restricted Areas Above the Land Areas or Territorial Waters of a State - Not implemented~~	~~29/03/2019 SAIOACG/9~~	~~Danger areas within international airspace that is part of a State's responsibility is acceptable~~ Australia has completed the corrective actions concerning the designation of restricted areas over land or territorial waters	~~Australia~~	~~December 2022~~	~~A~~
India	Designation of Restricted Areas Above the Land Areas or Territorial Waters of a State - Not implemented	29/03/2019 SAIOACG/9	Danger areas within international airspace that is part of a State's responsibility is acceptable	India	TBD	A
	Airspace Classification Requirements of Paragraph 2.6 of Annex 11					
China	Airspace Classification - Not implemented	7/7/99	Difference to Annex 11 is published in AIP, China.	China	APANPIRG/19 updated, implementation planned by end 2010.	A
Macao, China	Airspace Classification - Not implemented	05/09/2018		~~Macau~~ Macao, China	TBD	A
Nauru	Airspace Classification - Not implemented	7/7/99		Nauru	TBD	A
Solomon Islands	Airspace Classification - Not implemented	7/7/99		Solomon Islands	TBD	A

	Deficiencies			Corrective Action		
States/facilities	**Description**	**Date first reported**	**Remarks**	**Executing body**	**Target date**	**Priority ****
	ATS Message Addressing Requirements of Doc 4444 PANS-ATM Section 11.4 (Message Types and their Application)		Note: the threshold for a Deficiency is 5% or more DEP messages reported to have not been sent, and where the analysed data provided evidence of a systemic (either systems or human factors) failure to send the message			
Maldives	DEP message transmission	09/08/2019	DEP messages inconsistently transmitted Conclusion APANPIRG/27/12 and ICAO correspondence	Maldives	TBD	A
	SAR capability: Requirements of Annex 12 as defined in the Regional Air Navigation Plan Volume II Part I – GENERAL PLANNING ASPECTS Section 3 SPECIFIC REGIONAL REQUIREMENTS, failure to reach 90% or more implementation of the Asia/Pacific SAR Plan					
Afghanistan	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/6 56%~~ APSAR/WG/10 55%	Afghanistan	2019	U
Bangladesh	Asia/Pacific SAR Plan	17/05/2019	~~APSAR/WG/9 65%~~ APSAR/WG/10 66%	Bangladesh	2019	U
Bhutan	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/8 28%~~ APSAR/WG/10 26%	Bhutan	2019	U
Brunei Darussalam	Asia/Pacific SAR Plan	17/05/2019	~~APSAR/WG/4 63%~~ APSAR/WG/10 62%	Brunei	2019	U
Cambodia	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/9 76%~~ APSAR/WG/10 74%	Cambodia	2019	U

	Deficiencies			Corrective Action		
States/facilities	**Description**	**Date first reported**	**Remarks**	**Executing body**	**Target date**	**Priority ****
Macao, China	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/9 88%~~ APSAR/WG/10 86%	Macao, China	2019	U
Cook Islands	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/8 62%~~ APSAR/WG/10 60%	Cook Islands	2019	U
DPR Korea	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/8 71%~~ APSAR/WG/10 70%	DPR Korea	2019	U
French Polynesia	Asia/Pacific SAR Plan	17/05/2019	~~APSAR/WG/8 84%~~ APSAR/WG/10 82%	French Polynesia	2019	U
Kiribati	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/4 26%~~ APSAR/WG/10 25%	Kiribati	2019	U
Lao PDR	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/4 57%~~ APSAR/WG/10 56%	Lao PDR	2019	U
Maldives	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/8 78%~~ APSAR/WG/10 76%	Maldives	2019	U
Marshall Islands	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/5 17%~~ APSAR/WG/10 17%	Marshall Islands	2019	U
Micronesia	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/5 17%~~ APSAR/WG/10 17%	Micronesia	2019	U
Mongolia	Asia/Pacific SAR Plan	17/05/2019	~~APSAR/WG/9 89%~~ APSAR/WG/10 87%	Mongolia	2019	U
Myanmar	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/9 69%~~ APSAR/WG/10 68%	Myanmar	2019	U
Nauru	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/4 0%~~ APSAR/WG/10 0%	Nauru	2019	U
Nepal	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/9 66%~~ APSAR/WG/10 50%	Nepal	2019	U
New Caledonia	Asia/Pacific SAR Plan	17/05/2019	~~APSAR/WG/8 78%~~ APSAR/WG/10 77%	New Caledonia	2019	U

	Deficiencies			Corrective Action		
States/facilities	**Description**	**Date first reported**	**Remarks**	**Executing body**	**Target date**	**Priority ****
Pakistan	Asia/Pacific SAR Plan	17/05/2019	~~APSAR/WG/9 89%~~ APSAR/WG/10 89%	Pakistan	2019	U
Palau	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/5 17%~~ APSAR/WG/10 17%	Palau	2019	U
Papua New Guinea	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/7 54%~~ APSAR/WG/10 37%	Papua New Guinea	2019	U
Samoa	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/4 0%~~ APSAR/WG/10 0%	Samoa	2019	U
Solomon Islands	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/4 0%~~ APSAR/WG/10 0%	Solomon Islands	2019	U
Sri Lanka	Asia/Pacific SAR Plan	17/05/2019	~~APSAR/WG/9 84%~~ APSAR/WG/10 86%	Sri Lanka	2019	U
~~Thailand~~	~~Asia/Pacific SAR Plan~~	~~17/05/2019~~	~~APSAR/WG/9 85%~~ APSAR/WG/10 92%	~~Thailand~~	~~2025~~	~~U~~
Timor-Leste	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/4 0%~~ APSAR/WG/10 0%	Timor-Leste	2019	U
Tonga	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/4 70%~~ APSAR/WG/10 68%	Tonga	2019	U
Tuvalu	Asia/Pacific SAR Plan	28/05/2022	~~APSAR/WG/7 0%~~ APSAR/WG/10 0%	Tuvalu	2024	U
Vanuatu	Asia/Pacific SAR Plan	6/07/2015	~~APSAR/WG/4 0%~~ APSAR/WG/10 0%	Vanuatu	2019	U
	Non Provision of Safety-related Data Requirement of Paragraph 3.3.5.1 of Annex 11 (provision of data for monitoring the height-keeping performance of aircraft) and APANPIRG Conclusion 16/6 – Non Provision of safety related data by States					

	Deficiencies			Corrective Action		
States/facilities	**Description**	**Date first reported**	**Remarks**	**Executing body**	**Target date**	**Priority ****
Afghanistan	Non-provision of safety related data	12/07/2019	Failure to submit Kabul LHD data for January-December 2018 and 2020. Afghanistan had submitted data for the period January to July 2021, but no further LHD reports were received after August 2021.	Afghanistan	TBD	U
	State Responsibility to comply with the Annex 6 Height-Keeping Monitoring Requirement Annex 6 Part I Section 7.2.9 (10th Ed.) and Part II Section 2.5.2.10 (9th Ed.)					
Afghanistan	Non-compliance with LTHM requirement (remaining monitoring burden more than 30%)	RASMAG/23	Remaining monitoring burden of 50% (RASMAG/29) MAAR informed ICAO that all known airframes in Afghanistan have complied with the monitoring requirement (November 2022). Deficiency retained due to the unknown status of the Afghanistan aeronautical authority responsible for ensuring monitoring is conducted.	Afghanistan	TBD	A
India	Non-compliance with LTHM requirement (remaining monitoring burden more than 30%)	RASMAG/29	Remaining monitoring burden of 46% (RASMAG/30)	India	TBD	A
Nepal	Non-compliance with LTHM requirement (remaining monitoring burden more than 30%)	RASMAG/28	Remaining monitoring burden of 45% (RASMAG/30)	Nepal	TBD	A
~~Philippines~~	~~Non-compliance with LTHM requirement (remaining monitoring burden more than 30%)~~	~~RASMAG/29~~	~~Remaining monitoring burden of 40% (RASMAG/29)~~ Remaining monitoring burden of 22% (RASMAG/30)	~~Philippines~~	~~TBD~~	~~A~~

	Deficiencies			Corrective Action		
States/facilities	**Description**	**Date first reported**	**Remarks**	**Executing body**	**Target date**	**Priority ****
	~~**Data Link Performance Monitoring and Analysis Requirements of Paragraph 2.28 and/or 3.3.5.2 of Annex 11 not met**~~					
~~India~~	~~Post-implementation monitoring not implemented~~	~~13/07/2017~~	~~Performance monitoring and analysis was reported for the Chennai and Kolkata FIRs, but was not reported for the Mumbai FIR.~~ (FIT-Asia/15): India had submitted the data link performance report for all the three FIRs, including Mumbai FIR.	~~India~~	~~TBD~~	~~A~~

** Note: In accordance with the *APANPIRG Handbook - Asia/Pacific Supplement to the Uniform Methodology for the Identification, Assessment and Reporting of Air Navigation Deficiencies*, priority for Air Navigation Deficiencies is guided by the principle that a deficiency with respect to an ICAO Standard is accorded a "U" status, while a non-compliance with a Recommended Practice or a PANS is considered as "A" or "B" subject to additional expert evaluation. The final prioritization of deficiencies is the prerogative of APANPIRG.

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 16 Dec. 2020

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Afghanistan							
Annex 14 Volume I	**Herat International Airport**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	Kabul International Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	Kandahar International Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	Mazar-e-Sharif Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
Annex 14 Volume I PANS-Aerodromes PANS-AIM	**AIP**	**Status of Certification of Aerodromes in AIP**	Effective from 1 Jan 2021	Status of certification of aerodromes yet to be published in AIP AD 1.5.				A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on ~~12 June 2024~~ 22 August 2025

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Bangladesh							
Annex 14 Volume I	**Hazrat Shahjalal International Airport, Dhaka**	**Runway~~/ Taxiway~~**	**ICAO mission April 2009**	Runway strip width insufficient (280m strip not available for the full length of runway);	runway strip in accordance with Annex 14, Volume I will be provided	CAABD	Runway strip width 280 m available for the full length of runway (Mitigation measures for storm water drain on the western side strip, is being replaced with concrete hollow pipes into graded surface. Construction work has been completed for around ~~1000 m~~ 1300 m out of the 3200 m length of the runway and the total work will be completed by June ~~2025~~ 2026. No obstructions on graded area).	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on ~~16 Dec. 2020~~ 11 March 2025

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
Annex 14 Volume I	**Brunei Darussalam** **Brunei International Airport**	**Taxiway (Marking)**	ICAO Mission of April 2011	Non provision of enhanced taxiway centre line marking in accordance with Para 5.2.8 of Annex 14, Volume I	~~Both Northern Parallel Taxiway and Southern Parallel Taxiway Centre line have been repainted yellow and enhanced with black borders on each side.~~ Both Northern Parallel Taxiway and Southern Parallel Taxiway Centre line have been repainted with enhanced taxiway centre line marking with yellow and enhanced with black borders on each side in accordance with Para 5.2.8 of Annex 14, Volume I. Note: Southern Parallel Twy has been closed since Q4 2024 until 1st Quarter 2026 due to	Airport Operator (DCA Aerodrome Division)	Completed in Q4 2024 **ICAO APAC Comments:** Evidence of corrective action taken provided by Brunei were not sufficient to close this deficiency.	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
					upgrading under Pavement Rehabilitation Project Phase 2			
		Taxiway Strip		Objects on taxiway strips; vegetation on pavement joints and maintenance of joints	Obstacles on or near taxiway strips are relocated as per clearance for critical aircraft using the aerodrome. Vegetation on pavement joints have been removed and maintenance of joints on taxiway strips are carried out by contractors.	Airport Operator (DCA Aerodrome Division	Completed in Q4 2024 **ICAO APAC Comments:** Evidence of corrective action taken provided by Brunei were not sufficient to close this deficiency.	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
		Apron		non provision of ICAO compliant signage in accordance with section 5.4 Annex 14, Volume I	Airfield signages have always been provided at BIA that follow ICAO standards and measurement. Recent replacement of old and faded labels have also been completed in 2018.	Airport Operator (DCA Aerodrome Division)	Replacement of non provision of ICAO compliant information signages to apron were completed in July 2024. **ICAO APAC Comments**: Evidence of corrective action taken provided by Brunei were not sufficient to close this deficiency.	A
		Rescue and Fire Fighting (RFF):		non provision of direct access for the rescue and fire fighting vehicles from the fire station into the runway;	~~Duly noted that there is no direct access for fire fighting vehicles to the runway at the moment, but one will be concluded within the second phase of the Airfield Pavement Rehabilitation Project.~~	Airport Operator (DCA Aerodrome Division)	~~4th Qtr. 2022~~ 1 st Qtr. 2026	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
					Direct access for the rescue and fire fighting vehicles from the fire station into the runway has been considered to be included within the Second Phase of the Airfield Pavement Rehabilitation Project under variation Order which is estimated to be completed by 1 st Qtr .2026			
		Wildlife Hazards:		Establishing a national bird control committee in accordance with APANPIRG Conclusion 18/1.	~~Aerodrome Division headed by Head of Aerodrome to firstly establish an in-house committee and will cooperate with Regulatory Division~~ Aerodrome Division headed by Head of Aerodrome to firstly establish an in-	Airport Operator (DCA Aerodrome Division)	~~4th Qtr. 2021~~ 4 th Qtr. 2025	B

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
					house small airport wildlife committee			
	Brunei International Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.	Airport operator is targeting Q4 2025 to possess an aerodrome certificate. Currently airport is still developing its aerodrome manual and sms manual.	Airport Operator (DCA Aerodrome Division)	4 th Qtr. 2025	A
Annex 14 Volume I PANS-Aerodromes PANS-AIM	AIP	**Status of Certification of Aerodromes in AIP**	Effective from 1 Jan 2021	Status of certification of aerodromes yet to be published in AIP AD 1.5.	Airport operator is targeting Q4 2025 to possess an aerodrome certificate and certification publishment into AIP AD 1.5 should follow.	Airport Operator (DCA Aerodrome Division)	4 th Qtr. 2025	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 25 June 2024

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	China							
Annex 14 Volume I	**Hualien Airport**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	Taichung Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	Tainan Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 03/07/2025

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
Annex 14 Volume I para 5.3.4.19	**FIJI** Nadi International Airport RWY 02 CAT 1 Approach Lighting System (HIALS)	RWY 02 partially meets the CAT 1 Approach Lighting System requirement for cross bar placement at 150m, 450m, and 750m. The current setup of the RWY 02 Approach Lighting System is a 900m extended centerline with three (3) crossbars at 300m, 600m, & 900m.	03/07/25	RWY 02 is a Precision Approach Runway Category 1	The Aerodrome operator will install additional crossbar lights, to ensure compliance with specifications set forth for a CAT 1 Approach Lighting System prescribed in Annex 14. i.e. Additional crossbars will be installed at 150m, 450m & 750m and the crossbar at 900m will be removed.	Fiji Airports	30/12/2026	B

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 25 June 2024

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	India							
Annex 14, Volume I	**Mumbai International Airport**	**Runway**	**AGA mission January 2009**	Runway strip is insufficient 300m strip width is not available for the full length of runway 09/27 in accordance with 3.4.3 of Annex 14, Volume I.	280m strip width for full length of runway 09/27 will be made available	MIAL	**31 Dec 2026** Land acquisition in progress. MIAL has filed temporary exemption with DGCA for non-compliance. Due to presence of slum in beginning of RWY 09/27 south – RWY strip 280m not available.	A
Annex 14 Volume I	**Chandigarh Airport**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified. – Defence Aerodrome				A
Annex 14 Volume I	**Goa Airport**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified. – Defence Aerodrome				A
Annex 14 Volume I	**Port Blair Airport**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified. – Defence Aerodrome				A
Annex 14 Volume I	**Pune Airport**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified. – Defence Aerodrome				A
Annex 14 Volume I	**Srinagar Airport**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified. – Defence Aerodrome				A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	India							
Annex 14	**GORAKHPUR (VEGK)**	**Aerodrome Certification**	25 June 2024	Aerodrome yet to be certified. – Defence Aerodrome				A
Volume I	**HINDAN (VIDX)**	**Aerodrome Certification**	25 June 2024	Aerodrome yet to be certified. – Defence Aerodrome				A
Annex 14	**JODHPUR (VIJO)**	**Aerodrome Certification**	25 June 2024	Aerodrome yet to be certified. – Defence Aerodrome				A
Volume I	**VISAKHAPATNAM (VOVZ)**	**Aerodrome Certification**	25 June 2024	Aerodrome yet to be certified				A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 16 June 2023

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
Annex 14 Volume I	**Kiribati** **Christmas Island Airport, Kiritimati**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.	Issued with the Interim Certificate since the Operator is not yet fully complied to the requirements	Airport Kiribati Authority	31 Dec 2023	A
	Bonriki International Airport, Tarawa	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.	The Aerodrome Operator is not yet fully complied to the requirements	Airport Kiribati Authority	31 Dec 2023	A
Annex 14 Volume I PANS-Aerodromes PANS-AIM	**AIP**	**Status of Certification of Aerodromes in AIP**	Effective from 1 Jan 2021	Status of certification of aerodromes yet to be published in AIP AD 1.5.	The AIP will be amended to include this deficiency	Civil Aviation Authority of Kiribati (CAAK)	15 Oct 2023	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on ~~11 July 2023~~ 10 June 2025

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
Annex 14 Volume I	**Lao PDR** **Wattay International Airport**	**Taxiway**	**ICAO Mission of March 2011**	Provision of stop bars at runway-holding position in accordance with Para 5.3.20 of ICAO Annex 14, Volume I	AOL request exemption to DCAL and proposed to install in Long Term Plan.	Airport of Laos (AOL)	DCA exempt of runway hold position lights in accordance to AOL and mention in the Certification.	A
		Rescue and Fire Fighting (RFF):		Provision of road holding position sign at all road entrances to a runway;	Completed Installation for all international airports, for Wattay International airport 4 signs are installed.	AOL	The signs are installed for all international airports and report to DCAL on 08 July 2022 Note:- Evidence of the corrective action taken are yet to be provided by Lao PDR.	A
		Wildlife Hazards:		Establishing a national bird control committee in accordance with APANPIRG conclusion 18/1.	DCAL to propose prime minister decree and establish national committee accordingly.	Department of Civil Aviation of Lao PDR (DCAL)	To be completed in 2024	B

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Luang Prabang International Airport	**Taxiway**		Provision of runway hold position lights in accordance with Para 5.3.19 of ICAO Annex 14, Volume I on new taxiways	Under consideration by Airports of Laos to purpose for support the budgets and installation	AOL	We have planned budgets and installation during 2021 to 2025	A
		Rescue and Fire Fighting (RFF):		Provision of road holding position sign at all road entrances to a runway;	Completed Installation for all international airports, for Luangprabang International airport 1 sign are installed.	AOL	The signs are installed for all international airports and report to DCAL on 08 July 2022 Note:- Evidence of the corrective action taken are yet to be provided by Lao PDR.	A
		Aerodrome Certification	Effective from 1 Jan 2021	Aerodrome yet to be certified.		DCAL and AOL	Aerodrome Certification will be completed in December 2023 (on Process)	A
	Savannakhet International Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.		DCAL and AOL	Aerodrome Certification will be completed in December 2024	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Pakse International Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.		DCAL and AOL	Aerodrome Certification will be completed in December 2024	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on ~~17 July 2024~~ 24 March 2025

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
Annex 14 Volume I	**Malaysia** **Kuantan Haji Ahmad Shah Airport**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.	Coordination among Ministry of Transport, Ministry of Defense and Airport Operator are being conducted to get the aerodrome certified	Ministry of Transport and Ministry of Defense	June 2025	A
	~~**Labuan Airport**~~	~~**Aerodrome Certification**~~	~~Effective from 1 Jan 2021~~	~~Aerodrome yet to be certified.~~	~~Coordination among Ministry of Transport, Ministry of Defense and Airport Operator are being conducted to get the aerodrome certified~~	~~Ministry of Transport and Ministry of Defense~~	~~Dec. 2024~~ Certified on 01 March 2025 [Resolved]	~~A~~

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 16 Dec. 2020

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Marshall Islands							
Annex 14 Volume I PANS-Aerodromes PANS-AIM	AIP	**Status of Certification of Aerodromes in AIP**	Effective from 1 Jan 2021	Status of certification of aerodromes yet to be published in AIP AD 1.5.				A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 16 Dec. 2020

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Micronesia (Federated States of)							
Annex 14 Volume I	**Pohnpei International Airport**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	FM Chuuk International Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	Yap International Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	Kosrae Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
Annex 14 Volume I PANS-Aerodromes PANS-AIM	**AIP**	**Status of Certification of Aerodromes in AIP**	Effective from 1 Jan 2021	Status of certification of aerodromes yet to be published in AIP AD 1.5.				A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on ~~16 Dec. 2020~~ 17 April 2025

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Nauru							
Annex 14 Volume I	**Nauru International Airport**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.	Initiate the aerodrome certification process in accordance with ICAO Annex 14 requirements, including gap analysis, preparation of the Aerodrome Manual, stakeholder coordination, and on-site compliance inspection.	Nauru Civil Aviation Authority	Q4 2027(Subject to ICAO and Donor Support)	A
Annex 14 Volume I PANS-Aerodromes PANS-AIM	**AIP**	**Status of Certification of Aerodromes in AIP**	Effective from 1 Jan 2021	Status of certification of aerodromes yet to be published in AIP AD 1.5.	Update and publish the certification status of the aerodrome in AIP section AD 1.5 upon progress or completion of the certification process, as per PANS-AIM guidelines.	Nauru Civil Aviation Authority	Q4 2027(Subject to ICAO and Donor Support)	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 16 Dec. 2020

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Palau							
Annex 14 Volume I PANS-Aerodromes PANS-AIM	**AIP**	**Status of Certification of Aerodromes in AIP**	Effective from 1 Jan 2021	Status of certification of aerodromes yet to be published in AIP AD 1.5.				A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 27 March 2024

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Philippines							
Annex 14 Volume I	**Kalibo International Airport, Akla**	**Aerodrome Certification**	Effective from 1 Jan 2021	Permanent aerodrome certificate yet to be issued.			Temporary Aerodrome Certificate issued with validity from ~~2 Jan. 2024 until 30 June 2024 Status of Aerodrome Certification as of 22 Feb. 2024 (As per CAAP Website)~~ 1 Jan. 2025 to 30 June 2025	A
	Puerto Princesa International Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Permanent aerodrome certificate yet to be issued.			Temporary Aerodrome Certificate issued with validity from ~~10 Dec. 2023 – 10 Jun. 2024. Status of Aerodrome Certification as of 22 Feb. 2024 published in CAAP Website.~~ 11 Dec. 2024 to 9 June 2025.	A
	Bohol-Panglao International Airport	**Aerodrome Certification**	Effective from 1 Jan 2021	Permanent aerodrome certificate yet to be issued.			Temporary Aerodrome Certificate issued with validity from ~~30 Dec. 2023 – 29 Jun. 2024. Status of Aerodrome Certification as of 22 Feb. 2024 published in CAAP Website.~~ 30 Dec. 2024 to 29 June 2025.	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	~~**Diosdado Macapagal International Airport RPLC**~~	~~**Aerodrome Certification**~~	~~6 March, 2023~~	~~Permanent aerodrome certificate yet to be issued.~~			~~Temporary Aerodrome Certificate issued with validity from 7 Jan. 2024 until 7 Jul. 2024. Status of Aerodrome Certification as of 22 Feb. 2024 published in CAAP Website.~~ Permanent Aerodrome Certificate issued on 22 January 2025. **[Resolved]**	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on ~~16 Dec. 2020~~ 10 Nov. 2025

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	~~**Mongolia**~~							
~~**Annex 14 Volume I**~~	~~**Buyant-Ukhaa Airport**~~	~~**Taxiway**~~	~~**ICAO Mission of July 2011**~~	~~provision of runway hold position lights in accordance with Para 5.3.19 of ICAO Annex 14, Volume I (5th Ed. 2009)~~	~~The runway hold position lights will be provided in accordance with Para 5.3.19 of ICAO Annex 14, Volume I (5th Ed. 2009).~~	~~Civil Aviation Authority of Mongolia~~	~~The RWY hold position marking and mandatory signs were provided to avoid runway incursions on the maneuvering area. Because of the existing International scheduled flights will be transferred to new airport in 2020, the additional runway hold position lights are unrequired to install.~~ 1. By Resolution No. 455 of the Government of Mongolia (December 18, 2019), the former Chinggis Khaan International Airport was renamed Buyant-Ukhaa International Airport, and the newly constructed airport was renamed Chinggis Khaan International Airport. 2.Following the opening of the new Chinggis Khaan International Airport on 4 July 2021, all scheduled flight operations were transferred, and the new airport has been operating 24 hours a day.	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
							3. Buyant-Ukhaa International Airport operates only during daylight hours (UTC 23:30–11:30). 4.The airport currently has no regular scheduled flights and is mainly used for general aviation, flight training, and emergency operations. 5. The aerodrome corresponds to a CAT I runway, and flight operations cannot be conducted when RVR is below 550 meters. Considering the above operational conditions, installation of stop bar lights at the runway holding position of Buyant-Ukhaa International Airport is considered unnecessary. **[Resolved]**	

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
		~~**Apron: Airfield signage**~~		~~Provision of ICAO compliant signage in accordance with section 5.4 Annex 14, Volume I and to cut the vegetation in front of the signs.~~	~~The signage will be provided in accordance with section 5.4 Annex 14, Volume I.~~ ~~The vegetation in front of the signs will be cut~~	~~Civil Aviation Authority of Mongolia~~	~~The work on cutting the vegetation in front of the signs was completed in 2017 within the totally 119560 m² area including, taxiway strip, glide path antenna and apron area, as per Aerodrome manual of, in scope of Aerodrome maintenance plan.~~ ~~[Note: Partially completed]~~ A work plan was developed to replace and update taxiway information signs to comply with the requirements of Annex 14. The corrective measures were implemented in 2024 to eliminate the noted deficiency, and the completion report has been submitted. **[Resolved]**	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 15 June 2021

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Myanmar							
Annex 14 Volume I	**Yangon International Airport**	**Runway/ Taxiway**	**ICAO mission April 2010**	Provision of RESA in accordance with Section 3.5 of Annex 14, Volume I requirements;	RESA will be provided	Yangon Aerodrome Company Limited	(Risk Assessment conducted by the operator submitted on 10 Aug 2018.) RESA for RWY 21 was completed on 15 Nov 2018. _____ Revised date- **31 Dec 2021**	A
		~~Bird~~ Wildlife Hazards		Establishment of a national bird committee in accordance with APANPIRG Conclusion 18/1.	Establish National Bird Committee	Department of Civil Aviation	Guideline for Wildlife Hazard Management at Aerodromes, DCA-GM-AGA 08 has been developed and published on 29 Oct 2018) Revised date- **30 Nov 2021**	B

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on ~~20 June 2024~~ 28 May 2025

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
Annex 14, Volume I	**Nepal** **Tribhuvan International Airport**	**Runway~~/ taxiways~~**	**ICAO Mission of February 2008**	Insufficient runway strip, refer recommendations given in section 3.4 of Annex 14, Volume I.	Provide runway strip as per ICAO recommendations	Air Transport Capacity Enhancement Project (ATCEP) under Civil Aviation Authority of Nepal	~~Construction works are in progress to improve and provide airside infrastructures in accordance with Ultimate Master Plan of Tribhuvan International Airport, which will provide sufficient runway strip with target complete implementation of the plan by 2026.~~ • As per section 3.4 length of runway strips (60 m) before the threshold and beyound the end of the runway is already provided. • The runway is oriented approximately North-South (02-20) direction in the airport. As per recommendations given in section 3.4, the 140 m width of runway strip throughtout the runway length on the West side of runway centerline will be available with the completion of ongoing	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

							parallel taxiway extension and international apron expansion works by 2026. • The 140 m width of runway strip on the East side of runway centerline for northern 1340 m length of the runway will also be available with the completion of ongoing hangar area development works by 2026. • Width of runway strip on the East side of runway centerline for remaining 1740 m length of the runway towards the South will be provided by 2030.	

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on ~~27 March 2024~~ 16 May 2025

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Samoa							
Annex 14 Volume I	**Faleolo International Airport**	**Runway Strip**	**ICAO Mission of Oct. 2015**	Insufficient Runway Strip	A 2013 Rule Exemption based on a comprehensive aeronautical study supports the 150 m runway strip width and the State has therefore accepted the lesser width. The recent changes to ICAO Annex 14 and NZ CAR Part 139 denote that the Faleolo Airport runway strip width meets the requirements for a non-precision instrument approach runway at 150 m overall width.	Civil Aviation Authority Samoa	Complete **ICAO APAC Comments:** Still non-compliance with Annex 14 Requirements.	A
		Aerodrome Pavements		Lack of maintenance of aerodrome pavements in accordance with Annex 14, 10.2	Faleolo International Airport upgraded its pavement for movement area in 2019 where a PAVER (software) training was conducted for the aerodrome operator personnel on the need to have a pavement maintenance plan.	Aerodrome Operator	December 2026	U

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 27 March 2024

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Solomon Islands							
Annex 14 Volume I	**Honiara International Airport/Henderson Field**	**Runway Strip**	**ICAO Mission of Oct. 2015**	Insufficient Runway Strip				A
		RESA		RESA at both ends of runway not provided				U
		Aerodrome Pavements		Lack of maintenance of aerodrome pavements in accordance with Annex 14, 10.2				U

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 15 June 2022

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Sri Lanka							
Annex 14 Volume I	**Bandaranaike International Airport**	**Runway/ Taxiway**	**ICAO mission April 2010**	Provision of 280m strip width for the full length of precision approach CAT I runway in accordance with the standard 3.4.3, Annex 14, Volume I; remove obstacles from runway strip; flush the strip with the adjacent runway shoulder.	runway strip in accordance with Annex 14, Volume I will be provided, obstacles from strip will be removed and flush strip with adjacent runway shoulder.	CAASL	Statistical analysis submitted by AASL has been accepted in 2021. Request made to submit the improved risk assessment with necessary amendments within 2022.	A
		Wildlife Hazards:		Establishment of a national bird committee in accordance with APANPIRG Conclusion 18/1.	National Bird Committee will be established.		A meeting to be held with all stakeholders to establish the Committee and to ratify the TOR by end of September 2022.	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on ~~24 March 2025~~ 5 November 2025

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Thailand							
Annex 14, Volume I	**Phuket International Airport**	**Runway (RESA)**	**AGA mission of July 2009**	RESA to satisfy Section 3.5 of Annex 14, Volume I requirements.	RESA will be provided at the end of both RWY09 and RWY27 to satisfy Section 3.5 of Annex 14, Volume I requirements. Remark: - Dimension of RESA RWY09 is 150x190 m. - Dimension of RESA RWY27 is 150x120 m.	Airports of Thailand Public Company Limited	The construction is expected to be completed in ~~2024~~ Jul 2025. Airports of Thailand Public Company Limited already has had the contractor for this construction's project and the safety assurance and project management documentation has been approved by the Civil Aviation Authority of Thailand to ensure that the aerodrome can continue to operate safely during the project. Currently, the construction progress is ~~81.23%~~ 84%.	U
		Runway Strip		Runway strip width insufficient (280m runway strip for precision approach runways in accordance with Para 3.4.3 of Annex 14, Volume I.	300m runway strip width will be made available. Except 111.4m length at the beginning of RWY09 (60m strip length before RWY09 threshold plus 51.4m length beyond the	Airports of Thailand Public Company Limited	The construction is expected to be completed in ~~2024~~ Jul 2025. Airports of Thailand Public Company Limited already has had the contractor for this	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
					threshold), the runway strip width will be extended 150m on the right side of RWY09 centre line and 90.27m on the left side of the runway centre line (due to the marsh near the runway).		construction's project and the safety assurance and project management documentation has been approved by the Civil Aviation Authority of Thailand to ensure that the aerodrome can continue to operate safely during the project. Currently, the construction progress is ~~81.23%~~ 84%.	
	~~**Krabi Airport**~~	~~**Aerodrome Certification**~~	~~Effective from 1 Jan 2021~~	~~Aerodrome yet to be certified.~~	~~Certify the aerodrome in accordance with aerodrome certification requirements~~	~~The Civil Aviation Authority of Thailand and Department of Airports~~	~~31 December 2024~~ ~~15 September 2025~~ Certified on 4 July 2025 [Resolved]	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	~~**Surat Thani Airport**~~	~~**Aerodrome Certification**~~	~~Effective from 1 Jan 2021~~	~~Aerodrome yet to be certified.~~	~~Certify the aerodrome in accordance with aerodrome certification requirements~~	~~The Civil Aviation Authority of Thailand and Department of Airports~~	~~31 December 2024~~ Certified on 18 November 2024 [Resolved]	~~A~~

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on ~~17 June 2024~~ 25 November 2025

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Timor-Leste							
Annex 14 Volume I	**Commander-in-Chief of the FALINTIL – Kay Rala Xanana Gusmão International Airport, Suai (WPDB)**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.	~~To be certify for its designed category (3C) the significant safety issue relating to AD strip (local houses and habitants must be relocated!) should be resolved.~~ • ~~There is ongoing process of reallocation of the houses and habitants within the AD strip;~~ • ~~There is a process of the establishment of the manuals, SOPs, various Airport committees (ASC-RSCA, ERC)~~ • ~~Currently AD is occasionally in use for domestic general aviation and helicopters only.~~	Gov. TL and ANATL as AD operator	~~Estimated date:~~ ~~31 December 2024~~ • The original estimated completion date for the project was 31 December 2024. However, due to a range of challenges encountered by the airport operator-such as delays in the relocation of residents within the aerodrome strip, logistical constraints, and the complexity of coordinating multiple ongoing infrastructure and regulatory developments—the timeline has been revised. • As a result, the new estimate completion date has been extended to 31 December 2025. This extension will allow sufficient time to address the outstanding safety issues, finalize	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
					To be certified under category 3C, the significant safety related to the Aerodrome (AD) strip—specifically, the presence of local houses and inhabitants within the area—must be resolved. • The relocation of houses and inhabitants within the AD strip is currently in progress. • Efforts are underway to establish key documentation, including manuals, standard operating procedures (SOPs), and the formation of various airport committees such as the Airport Emergency Response Plan (AERP) and Airport Security Program (ASP).		the installation and calibration of critical navigation aids (such as AWOS, D-VOR, and PAPIs), and complete the necessary administrative and operational preparations required for airport certification under category 3C.	

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
					• At present, the aerodrome is occasionally used for domestic general aviation and helicopter operations only. • The installation and calibration of the Automated Weather Observing System (AWOS), Doppler VHF Omnidirectional Range (D-VOR), and Precision Approach Path Indicators (PAPIs) are ongoing. These improvements are intended to facilitate the relocation of all helicopter operations to Dili, aligning with the broader airport certification process.			

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Rota de Sândalo International Airport, Oe-Cusse (WPOC)	**Aerodrome Certification**	Effective from 1 Jan 2025	Aerodrome yet to be certified.	To achieve certification under its designated runway category (4C), the airport operator is actively undertaking several preparatory actions. These include: • The development of comprehensive airport manuals, the formulation of standard operating procedures (SOPs), and the establishment of key airport committees such as the Airport Security Committee-Runway safety and Compliance Assessment (ASC-RSCA) and the Emergency Response Committees (ERC). • Currently, the aerodrome (AD) is only used	Gov. TL and ANATL as AD operator	Estimated date: 31 December 2025	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
					occasionally for domestic operations and helicopter movements. • In early May 2025, the airport operator submitted an official Expression of Interest (EOI) for certification. Following this, a certification roadmap was established, outlining the key milestones and deliverables required to meet the 4C standard. A dedicated technical team has been formed and has commenced the formal assessment of the application, in alignment with the established roadmap and regulatory requirements.			

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 27 March 2024

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Tonga							
Annex 14 Volume I	**Fua'amotu International Airport**	**Runway Strip**	**ICAO Mission of Oct. 2015**	Insufficient Runway Strip	1. File of difference to ICAO Annex 14 Volume I 3.4.4 through CMA-OLF and the publication of significant difference in the AIP Tonga - CAR 139.C.2.2 details that the strip width for aerodrome reference code number 4, non-precision runway must extend laterally on each side of the centre line of the runway and its extended centre line throughout the length of the strip to the minimum distance of 75m. 2. Provide 240m runway strip width at Fuaámotu International Airport.	CAD Office	1. 28 December 2023 2. 31 December 2030	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated on 1 Nov. 2022

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
Annex 14 Volume I	**Tuvalu** **Funafuti International Airport**	**Aerodrome Certification**	Effective from 1 Jan 2021	Aerodrome yet to be certified.	Aerodrome yet to be certified.		Part 139 Aerodrome Certification in progress for 2023	A
Annex 14 Volume I PANS-Aerodromes PANS-AIM	**AIP**	**Status of Certification of Aerodromes in AIP**	Effective from 1 Jan 2021	Status of certification of aerodromes yet to be published in AIP AD 1.5.	Status of certification of aerodromes yet to be published in AIP AD 1.5.		Update Tuvalu AIP Info	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

* Priority for action to remedy the shortcoming is based on the following safety assessments:

"U" priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions. Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.

"A" priority = Top priority requirements necessary for air navigation safety. Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

"B" priority = Intermediate requirements necessary for air navigation regularity and efficiency. Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.

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REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE CNS FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirement	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action**
Reliable ground to ground communication as specified in the regional Air Navigation Plan (Doc.9673) Tables CNS II-1; CNS II-2 & CNS II-3	Afghanistan and Pakistan	Unreliability of AFS communication between Afghanistan and Pakistan was brought to the notice of APANPIRG/21. Lack of reliability in the AFS including data communication between Kabul and Karachi and ATS voice communication between Lahore and Kabul was identified.	September 2010	A follow-up COM coordination meeting held in July 2019 discussed way forward	1. Site visits in Pakistan by an expert from the VSAT service provider were made in February and March 2016. Remedial recommendations were provided to CAA. Pakistan. Pakistan requested ICAO to provide assistance in establishing a VSAT link in 2022. 2. Both Afghanistan and Pakistan agreed to as first step to recover the VSAT connection by upgrading terminals in Lahore and Karachi. Afghanistan will provide assistance and does the Network Configuration settings; 3. A VPN link was established between Karachi and Kabul through UK. Now the VPN link between UK and Kabul is un-serviceable. 4. Both States also agreed to implement CRV as soon as practical to resolve the existing COM deficiencies. 5.Pakistan has joined CRV and is actively coordinating with Afghanistan to restore the communication link between Afghanistan and Pakistan. Pakistan is expected to restore the connection by the end of 2024. 6. **CNS SG/29 (16-20 June 2025)-** The AFS communication link between	CAA. Afghanistan and CAA. Pakistan **# Note:** ***Pakistan has done significant efforts to take corrective action to resolve this deficiency.***	End of 2024 No dates can be shared from Pakistan – CNS SG/29 (16-20 June 2025)	A

Identification		Deficiencies			Corrective Action			
Requirement	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action**
					Pakistan and Afghanistan remains non-operational due to the absence of a functioning AFS system on the Afghanistan side. Pakistan is fully prepared and available to activate the link as soon as Afghanistan establishes the required AFS infrastructure. Afghanistan had not given any tentative timelines. Therefore, it was requested that this deficiency be removed from Pakistan's side. 7. APANPIRG/36 (24-26 November 2025) noted the request and decided to keep both parties, as two parties are involved in establishing reliable AFS communication. However, a note was added in the column "Executing body" under "Corrective Action" acknowledging Pakistan's efforts to resolve the deficiency by establishing the COM link by joining CRV. Due to the absence of a non-functioning AFS system on the Afghanistan side, the matter cannot be progressed further.			

Appendix D – APANPIRG Reporting Form on Air Navigation Deficiencies in the MET Field

REPORTING FORM ON (OPEN) AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		**Deficiencies**			**Corrective action**			
Requirements	**States/ Facilities** (Index No.)	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action ***
MWO and SIGMET service (Annex 3: Chapter 3, 3.4 and Chapter 7)	**Democratic Peoples' Republic of Korea** (DPRK) (AP-MET-16)	Requirements for MWO and SIGMET service not established for Pyongyang FIR	2008	Reported by ICAO Regional Office mission	Establish MWO to provide required service, including SIGMET information for Phnom Penh FIR. **See notes below for more information.**	GACA, Democratic Peoples' Republic of Korea	TBC	A
Meteorological observations and reports. (Annex 3: Chapter 4)	**Kiribati** (AP-MET-02)	METAR from Kiribati not available on regular basis.	1998	Reported by airlines	Equipment to be installed and arrangements to be made for regular observations and reports, including: training of personnel; maintenance of equipment; calibration and verification of meteorological observations; and proper/secure transmission of data. **See notes below for more information.**	State designated MET authority	TBC	A
Meteorological information for operators and flight crew members, including forecasts provided by the WAFCs (Annex 3: Chapter 9)	**Kiribati** (AP-MET-18)	WAFC forecasts not available for inclusion in flight briefings and documentation	2008	Reported by TCB CAEMSA-SP Technical Expert	Implement procedures and systems for the required meteorological information to be supplied to operators and flight crew members, including forecasts generated from the digital forecasts provided by the WAFCs. **See notes below for more information.**	State designated MET authority	TBC	U
Meteorological information for operators and flight crew members, including forecasts provided by the WAFCs (Annex 3: Chapter 9)	**Nauru** (AP-MET-19)	WAFC forecasts not available for inclusion in flight briefings and documentation	2008	Reported by TCB CAEMSA-SP Technical Expert	Implement procedures and systems for the required meteorological information to be supplied to operators and flight crew members, including forecasts generated from the digital forecasts provided by the WAFCs. **See notes below for more information.**	State designated MET authority	TBC	U
Meteorological observations and reports. (Annex 3: Chapter 4)	**Nauru** (AP-MET-21)	METAR/SPECI service not provided	2008	Reported by TCB CAEMSA-SP Technical Expert	Equipment to be installed and arrangements to be made for regular observations and reports, including: training of personnel; maintenance of equipment; calibration and verification of meteorological observations; and proper/secure transmission of data. **See notes below for more information.**	State designated MET authority	TBC	U

REPORTING FORM ON (OPEN) AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		**Deficiencies**			**Corrective action**			
Requirements	**States/ Facilities** (Index No.)	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action ***
Provision of SIGMET information (Annex 3, Chapter 7)	**Nauru** (AP-MET-24)	Lack of SIGMET issued for the Nauru FIR.	Sep 2011	IATA deemed this situation unsafe and unacceptable to airline operations.	Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations. **See notes below for more information.**	State designated MET authority	TBC	U
Provision of SIGMET information (Annex 3: Chapter 7)	**Nepal** (AP-MET-14)	Requirements for issuance and dissemination of SIGMET information for Kathmandu FIR have not been fully implemented	2000		Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations. **See notes below for more information.**	State designated MET authority	TBC	A
Reporting of information on volcanic eruptions to civil aviation units. (Annex 3, 3.6, 4.8)	**Papua New Guinea** (AP-MET-04)	Information on volcanic activity not provided regularly to ATS units, MWOs and VAACs.	1995	Observed by States concerned. Reported at the WMO/ICAO Workshop on Volcanic Ash Hazards (Darwin, 1995)	Establish arrangements for State volcano observatories to send the required volcano observation information as quickly as practicable to the associated ACC/FIC, MWO and VAAC. **See notes below for more information.**	Rabaul Volcano Observatory, NWS and ASL of Papua New Guinea	TBC	A
Provision of SIGMET for volcanic ash (Annex 3: Chapter 7)	**Papua New Guinea** (AP-MET-08)	Requirements for issuance and proper dissemination of SIGMET for volcanic ash have not been fully implemented	Dec 2003	Reported by airlines, noted by Volcanic Ash Advisory Centres and confirmed by ICAO mission	Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of volcanic ash. **See notes below for more information.**	NWS of Papua New Guinea	TBC	U
Provision of SIGMET information (Annex 3, Chapter 7)	**Papua New Guinea** (AP-MET-22)	Lack of SIGMET issued for the Port Moresby FIR.	Sep 2011	IATA deemed this situation unsafe and unacceptable to airline operations.	Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations. **See notes below for more information.**	State designated MET authority	TBC	U

REPORTING FORM ON (OPEN) AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		**Deficiencies**			**Corrective action**			
Requirements	**States/ Facilities** (Index No.)	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action ***
Meteorological information for operators and flight crew members, including forecasts provided by the WAFCs (Annex 3: Chapter 9)	**Solomon Islands** (AP-MET-20)	WAFC forecasts not available for inclusion in flight briefings and documentation	2008	Reported by TCB CAEMSA-SP Technical Expert	Implement procedures and systems for the required meteorological information to be supplied to operators and flight crew members, including forecasts generated from the digital forecasts provided by the WAFCs. **See notes below for more information.**	State designated MET authority	TBC	U
Reporting of information on volcanic eruptions to civil aviation units. (Annex 3: 3.6, 4.8)	**Tonga** (AP-MET-17)	Information on volcanic activity not provided regularly to ATS units, MWOs and VAACs	2008	Reported by TCB CAEMSA-SP technical expert	Establish arrangements for State volcano observatories to send the required volcano observation information as quickly as practicable to the associated ACC/FIC, MWO and VAAC. **See notes below for more information.**	MOI and MEIDECC	TBC	U

NOTES ON THE (OPEN AND CLOSED) AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION				
Index No.	**State**	**Update Date**	**NOTES ON OPEN AND CLOSED DEFICIENCIES**	**Status**
AP-MET-01	Solomon Islands	December 2020	Removed from the open List; APANPIRG/31 Conclusion 31/19, refers.	Closed
AP-MET-02	Kiribati	September 2023	MET SG/27 was informed that: • Kiribati is now delivering observations regularly but is continuing work on upgrading its observing facility before providing resolution information.	**Open**
		September 2017	APANPIRG/28 noted that Kiribati should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	
AP-MET-03	Indonesia	September 2017	Removed from the open List, APANPIRG/28 Conclusion 28/29 refers.	Closed
AP-MET-04	Papua New Guinea	September 2023	MET SG/27 was informed that: • VAACs Darwin and Wellington are planning a series of exercises in the next six months with the Papua New Guinea (PNG) State Volcano Observatory and MWO to address the PNG volcanic activity information and SIGMET deficiencies, along with the Nauru SIGMET deficiency (due to PNG providing SIGMETs on Nauru's behalf).	**Open**

NOTES ON THE (OPEN AND CLOSED) AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION				
Index No.	**State**	**Update Date**	**NOTES ON OPEN AND CLOSED DEFICIENCIES**	**Status**
		November 2022 September 2017	APANPIRG/33 noted MET SG/26 recommended that Papua New Guinea: • Conduct additional corrective actions, including seeking confirmation from the recipient operational units and providing evidence of the relevant established procedures; and • Submit an official report to ICAO providing complete details of the action taken. APANPIRG/28 noted that Papua New Guinea should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	
AP-MET-05	–	–	This Index No. is not used.	Closed
AP-MET-06	Indonesia	September 2017	Removed from the open List, APANPIRG/28 Conclusion 28/29 refers.	Closed
AP-MET-07	Philippines	November 2019	Removed from the open List, Conclusion APANPIRG/30/19, refers.	Closed
AP-MET-08	Papua New Guinea	September 2023	MET SG/27 was informed that: • VAACs Darwin and Wellington are planning a series of exercises in the next six months with the Papua New Guinea (PNG) State Volcano Observatory and MWO to address the PNG volcanic activity information and SIGMET deficiencies, along with the Nauru SIGMET deficiency (due to PNG providing SIGMETs on Nauru's behalf).	**Open**
		September 2017	APANPIRG/28 noted that Papua New Guinea should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	
AP-MET-09	Cambodia	September 2018	Removed from the open List, APANPIRG/29 Decision 29/23 refers	Closed
AP-MET-10	–	–	This Index No. is not used.	Closed
AP-MET-11	Cambodia	September 2018	Removed from the open List, APANPIRG/29 Decision 29/24 refers	Closed
AP-MET-12	Lao PDR	September 2018	Removed from the open List, APANPIRG/29 Decision 29/24 refers	Closed
AP-MET-13	–	–	This Index No. is not used.	Closed
AP-MET-14	Nepal	December 2023	APANPIRG/34 considered the deficiency could be removed from the Open List subject to receiving confirmation of the regular dissemination of the Kathmandu FIR SIGMET information in IWXXM form (in addition to TAC form)	**Open**

NOTES ON THE (OPEN AND CLOSED) AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION				
Index No.	**State**	**Update Date**	**NOTES ON OPEN AND CLOSED DEFICIENCIES**	**Status**
		September 2023	MET SG/27 noted that: • Nepal made significant progress towards rectification of the deficiency, including confirmation of the regular issuance of SIGMET information in 2022, successful participation in the annual APAC regional SIGMET tests, coordination of SIGMET with neighbouring MWOs, and validation from users of receipt of the SIGMET information. • Nepal was not disseminating SIGMET information in the IWXXM form in addition to the dissemination of SIGMET information in the TAC form, as required by Annex 3. • Nepal was in the process of procuring a solution to provide SIGMET in IWXXM form. • APANPIRG may review the status of the deficiency and remove it from the Open List, subject to Nepal confirming in writing to ICAO, and validated by RODB Bangkok, that the regular dissemination of SIGMET information in IWXXM form in addition to TAC form.	
		September 2017	APANPIRG/28 noted that Nepal should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	
AP-MET-15	–	–	This Index No. is not used.	Closed
AP-MET-16	Democratic People's Republic of Korea	September 2017	APANPIRG/28 noted that DPRK should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	**Open**
AP-MET-17	Tonga	September 2023	MET SG/27 was informed that: • Tonga is developing an MOU between organisations involved in providing and sharing volcanic activity information, which includes the procedures to be followed.	**Open**
		November 2022	APANPIRG/33 noted MET SG/26 recommended that Tonga: • Conduct additional corrective actions, including seeking confirmation from the recipient operational units and providing evidence of the relevant established procedures; and • Submit an official report to ICAO providing complete details of the action taken.	
		September 2017	APANPIRG/28 noted that: • Removal of the Deficiency from the open List is subject to the concurrence of the ATS units, MWOs and VAACs concerned that the Deficiency is resolved.	
		June 2018	MET SG/22 noted that: • VAAC Wellington was coordinating with Tonga on the validation of corrective action taken to resolve the Deficiency.	
		29 May 2017	MOI, Civil Aviation Division, advised that: • Relevant operating procedures implemented in the units concerned and case studies of real volcanic events presented as evidence of the State volcano observatory's issuance of the required volcano observation information.	

NOTES ON THE (OPEN AND CLOSED) AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION				
Index No.	**State**	**Update Date**	**NOTES ON OPEN AND CLOSED DEFICIENCIES**	**Status**
		10 May 2013	Ministry of Infrastructure (MOI), Civil Aviation Division, advised that: • MOU established between the national authority providing volcano monitoring (Ministry of Lands, Environment, Climate Change and Natural Resources – MLECCNR) and the national authority providing meteorological service for international air navigation (MOl) for the reporting of volcanic activity to the associated ACCs, MWOs and VAACs in accordance with the relevant ICAO SARPs.	
AP-MET-18	Kiribati	September 2023	MET SG/27 was informed that: • Kiribati, Nauru and Solomon Islands are working with their local users to determine whether there is any requirement for local WAFS information provision.	**Open**
		September 2017	APANPIRG/28 noted that Kiribati should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	
AP-MET-19	Nauru	September 2023	MET SG/27 was informed that: • Kiribati, Nauru and Solomon Islands are working with their local users to determine whether there is any requirement for local WAFS information provision.	**Open**
		September 2017	APANPIRG/28 noted that Nauru should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	
AP-MET-20	Solomon Islands	September 2023	MET SG/27 was informed that: • Kiribati, Nauru and Solomon Islands are working with their local users to determine whether there is any requirement for local WAFS information provision.	**Open**
		September 2017	APANPIRG/28 noted that Solomon Islands should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	
		June 2019	MET SG/23 requested the Secretary in conjunction with support from other States to provide Solomon Islands with assistance in preparing the full report on rectification of the Deficiency.	
AP-MET-21	Nauru	September 2017	APANPIRG/28 noted that Nauru should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	**Open**
AP-MET-22	Papua New Guinea	September 2023	MET SG/27 was informed that: • VAACs Darwin and Wellington are planning a series of exercises in the next six months with the Papua New Guinea (PNG) State Volcano Observatory and MWO to address the PNG volcanic activity information and SIGMET deficiencies, along with the Nauru SIGMET deficiency (due to PNG providing SIGMETs on Nauru's behalf).	**Open**

NOTES ON THE (OPEN AND CLOSED) AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION				
Index No.	**State**	**Update Date**	**NOTES ON OPEN AND CLOSED DEFICIENCIES**	**Status**
		September 2017	APANPIRG/28 noted that Papua New Guinea should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	
AP-MET-23	Solomon Islands	November 2022	Removed from the open List; refer to: • Conclusion APANPIRG/33/14 – *Update of information in APANPIRG Air Navigation Deficiencies Reporting Form*; • APANPIRG/33 WP/14 – *STATUS OF AIR NAVIGATION DEFICIENCIES IN THE ASIA/PAC REGION*; • APANPIRG/33 WP/13 – *METEOROLOGY SUB-GROUP (MET SG/26) REPORT*; and • APANPIRG/33 IP/08 – *RECTIFICATION OF APANPIRG AN DEFICIENCY AP-MET-23*	Closed
		October 2021	MET SG/25 requested the Solomon Islands, with assistance from its partner States, to conduct additional corrective action to enable the MET SG to confirm that Solomon Islands had fully resolved the Deficiency; maintain a log of all SIGMETs issued over at least one month to capture the operational WC-, WS- and WV-SIGMETs, plus any test WV-SIGMETs; pass the details [of the log] to the ad hoc group [on AN Deficiencies] to compare against SIGMETs received by RODB Brisbane [MET SG/25, Action No. 25/10]. Subject to Solomon Islands demonstrating resolution of the issues concerning content, format and timeliness of SIGMET information (as discussed in MET SG/25, WP/12) and sustainable provision of ICAO-compliant SIGMET service, MET SG would support the removal of Deficiency AP-MET-23 from the APANPIRG open list. Therefore, to facilitate the removal of the Deficiency from the open List, MET SG/25 requested the Secretariat coordinate with the Solomon Islands to report the resolution of the Deficiency to APANPIRG [MET SG/25, Action No. 25/11].	
		June 2019	MET SG/23 requested the Secretary in conjunction with support from other States to provide Solomon Islands with assistance in preparing the full report on rectification of the Deficiency.	
		September 2017	APANPIRG/28 noted that Solomon Islands should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	
AP-MET-24	Nauru	September 2023	MET SG/27 was informed that: • VAACs Darwin and Wellington are planning a series of exercises in the next six months with the Papua New Guinea (PNG) State Volcano Observatory and MWO to address the PNG volcanic activity information and SIGMET deficiencies, along with the Nauru SIGMET deficiency (due to PNG providing SIGMETs on Nauru's behalf).	**Open**
		September 2017	APANPIRG/28 noted that Nauru should: • Verify the status of implementation of CAP; and • Work together with ICAO to develop and properly record the remaining steps of the CAP to resolve the Deficiency.	

Acronyms/Abbreviations/Definitions (used in this document)

ACC — Area control centre
ASL — Air Services Ltd.
ATS — Air traffic services
CAEMSA-SP — Cooperative Agreement for the Enhancement of Meteorological Services to Aviation - South Pacific

Acronyms/Abbreviations/Definitions (used in this document)

CAP	— Corrective action plan
FIC	— Flight information centre
FIR	— Flight information region
GACA	— General Administration of Civil Aviation
IATA	— International Air Transport Association
MEIDECC	— Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communication
MET	— Meteorological
METAR	— Aerodrome routine meteorological report *(in meteorological code)*
MWO	— Meteorological watch office
NWS	— National Weather Service
SIGMET	— Information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations
SPECI	— Aerodrome special meteorological report *(in meteorological code)*
TBC	— To be confirmed
TCB	— Technical Cooperation Bureau (of ICAO)
VAAC	— Volcanic ash advisory centre
WAFC	— World area forecast centre

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ICAO

LIST OF FOCAL POINT FOR AIR NAVIGATION DEFICIENCIES

Updated: 25 November 2025

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