

International Civil Aviation Organization

ICAO

WORKING PAPER (WP/08)
**ICAO Asia and Pacific (APAC)
Twenty-Ninth Meeting of the Meteorology Sub-Group
(MET SG/29)**

Bangkok, Thailand, 18 - 22 August 2025

Agenda Item 3: Air navigation deficiencies**ACTION REQUIRED FOR ASIA AND PACIFIC MET DEFICIENCIES**

(Presented by New Zealand and Australia)

SUMMARY

This paper describes themes within the current Asia and Pacific air navigation deficiencies, in particular relating to the different types of deficiencies, the sub-regions where States with deficiencies are located, and how long some deficiencies have been in place, with a specific focus on MET deficiencies. Action for the meeting is contained in paragraph 3.1.

1. INTRODUCTION

1.1 The Asia and Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) [terms of reference](#) states the three objectives of the Group:

- a) to ensure continuous and coherent development of the Asia/Pacific Regional Air Navigation Plan and other relevant regional documentation in a manner that is harmonized with adjacent regions, consistent with ICAO SARPs and Global Air Navigation Plan (DOC 9750) and reflecting global requirements;
- b) to facilitate the implementation of air navigation systems and services as identified in the Asia/Pacific Regional Air Navigation Plan with due observance to the primacy of air safety, regularity and efficiency; and
- c) to identify and address specific deficiencies in the air navigation field.

1.2 The [APANPIRG Procedural Handbook](#), Part V, advises that the Regional Office is the primary party for the management of deficiencies, and will keep under review and record the implementation by States of the requirements of the APAC Air Navigation Plan. The Regional Office is supported by the APANPIRG sub-groups in this task.

1.3 The current list of APAC air navigation deficiencies is available through the ICAO secure portal, under the [APANPIRG Deficiencies Database](#).

2. DISCUSSIONCurrent APAC Air Navigation Deficiencies

2.1 Prompted by WP/06 on potential deficiencies in the MET field, an analysis was carried out of the current 154 air navigation deficiencies in place for APAC States, the oldest having been in

place for 30 years. The following tables provide information on the **current** set of deficiencies, the first showing the percentage of current deficiencies held for each of the air navigation fields, with 91% in the AOP and ATM field combined.

Year Deficiency Allocated	Air Navigation Field			
	AOP	ATM	CNS	MET
1995-2004	0	5	0	4
2005-2014	19	24	1	8
2015-2024	51	42	0	0
Total	70 (45%)	71 (46%)	1 (1%)	12 (8%)

2.2 When considering just the current MET deficiencies, it can be seen in the table below that 10 out of 12 (83%) are held by Pacific Small Island Developing States (PSIDS), while 8 out of 12 are categorised as priority ‘U’¹ – all of which are held by PSIDS. When considering the year that each MET deficiency was applied, all have been in place for more than 14 years, with 3 of these in place for more than 25 years.

State Holding MET DEF	Priority	Description of DEF	Year DEF Applied
Kiribati	U	WAFS products not accessed and therefore not available for inclusion in flight briefings and documentation.	2008
	A	METAR from Kiribati not available on regular basis.	1998
Papua New Guinea	U	Requirements for issuance and proper dissemination of SIGMET, including SIGMET for volcanic ash, have not been fully implemented.	2003
	U	Lack of SIGMET issued for the Port Moresby [...] FIR.	2011
	A	Information on volcanic activity not provided regularly to ATS units and MWOs.	1995
Solomon Islands	U	WAFS products not accessed and therefore not available for inclusion in flight briefings and documentation.	2008
Tonga	U	Information on volcanic activity not provided regularly to ATS units, MWOs, and VAAC.	2008
Nauru	U	WAFS products not accessed and therefore not available for inclusion in flight briefings and documentation.	2008
	U	No METAR/SPECI observing programme in place (no calibrated and maintained equipment available).	2008
	U	Lack of SIGMET issued for the [...] Nauru FIR.	2011
Nepal	A	Requirements for issuance and dissemination of SIGMET have not been met.	2000
DPR Korea	A	Requirements for meteorological watch office (MWO) to be established at Pyongyang international airport have not been met.	2008

2.3 To give further context to the importance of supporting the provision of meteorological services, the International Air Transport Association (IATA) [Annual Safety Report](#) indicates that over

¹ Defined in the APANPIRG Procedural Handbook as “Urgent requirements having a direct impact on safety and requiring immediate corrective actions”.

the last 20 years, of the 262 fatal accidents in the database, 79 (30%) had meteorology determined to be a threat that contributed to the accident. Taking accidents from the APAC region only, 18 of 36 (50%) fatal accidents had meteorology as a threat.

2.4 Given the minimal number of appropriate diversion options for widebody aircraft that travel across the Pacific (such as North America to New Zealand or Australia), it is imperative that the Pacific States are well supported to address any deficiencies.

2.5 Chapter XV *Airports and Other Air Navigation Facilities* of the Chicago Convention ([Doc 7300](#)) contains the following two articles that relate to deficiencies in air navigation facilities:

Article 69 *Improvement of air navigation facilities*

If the Council is of the opinion that the airports or other air navigation facilities, including radio and meteorological services, of a contracting State are not reasonably adequate for the safe, regular, efficient, and economical operation of international air services, present or contemplated, the Council shall consult with the State directly concerned, and other States affected, with a view to finding means by which the situation may be remedied, and may make recommendations for that purpose. No contracting State shall be guilty of an infraction of this Convention if it fails to carry out these recommendations.

Article 70 *Financing of air navigation facilities*

A contracting State, in the circumstances arising under the provisions of Article 69, may conclude an arrangement with the Council for giving effect to such recommendations. The State may elect to bear all of the costs involved in any such arrangement. If the State does not so elect, the Council may agree, at the request of the State, to provide for all or a portion of the costs.

2.6 The Chicago Convention is clear in the need to ensure that the ICAO Council will review and consult on any State's inadequate air navigation facilities and make recommendations to remedy deficiencies. It may also enter into arrangements to give effect to those recommendations with the State bearing all costs or, at its request, the Council covering all or part of them.

2.7 With urgent MET deficiencies persisting for over 14 years, APANPIRG should explore alternative strategies to accelerate sustainable improvements. This may include revisiting decades-old deficiencies to determine if they are still valid and/or assisting States who have resolved the issues identified in the deficiency but not been able to gather and present the evidence.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) consider a draft conclusion for presentation to APANPIRG on improving methods for assisting States in the resolution of deficiencies.
