International Civil Aviation Organization

WORKING PAPER

ICAO Asia and Pacific (APAC)
Twenty-Seventh Meeting of the Meteorology Sub-Group (MET SG/27)

Bangkok, Thailand, 04 to 08 September 2023

Agenda Item 5: Planning and monitoring

MET DEFICIENCIES REVIEW OF THE 2022 ANNUAL SIGMET TEST OUTCOMES AND OPMET MONITORING ACTIVITIES

(Presented by MET/S MET Deficiencies Ad Hoc Group)

SUMMARY

This paper outlines the review of the ICAO APAC Regional SIGMET Test 2022 by the MET/S MET Deficiencies ad hoc group and proposes aligning the OPMET Monitoring Activity methodology to that which is undertaken by the ICAO EUR Region.

1. INTRODUCTION

1.1 The 25th Meeting of the Meteorology Sub-Group (MET SG/25) formulated the following decision:

> **Decision MET SG/25-04:** MET Deficiencies ad hoc group TOR
> That, MET/S WG ad hoc group, formed to work with relevant members of the MET/IE WG, utilises the guidance in the APANPIRG Procedural Handbook, Part V: *Uniform methodology for the identification, assessment and reporting of air navigation shortcomings and deficiencies* and other relevant ICAO documentation, to assist the ICAO Secretariat with the following:
>
> a) Continue to refine the process, based on the APANPIRG Procedural Handbook, for identifying, analysing, removing and proposing MET Deficiencies, utilising the results of annual ICAO SIGMET tests and OPMET Monitoring activities;
> b) Continue to refine the templates to be used for Deficiency Corrective Action Plans (CAP), Progress Reports and Final Reports; and
> c) As required, work with States concerned to develop a CAP, arrange for testing and monitoring and assist with the reporting to ICAO on the resolution of air navigation MET Deficiencies.

1.2 The MET/S MET Deficiencies ad hoc group has reviewed the outcomes of the ICAO APAC Regional SIGMET Test 2022, as presented in the conjoint session of the 13th Meeting of the Meteorological Services Working Group (MET/S WG/13) and the 21st Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/21) – see WP/C01 (Review of WS SIGMET Test 2022) and WP/C02 (Results of SIGMET Test 2022 – TC and VA) listed under the conjoint session at the MET/S WG/13 meeting site.

2. DISCUSSION

ICAO APAC Regional SIGMET Test 2022 Outcome

2.1 The MET Deficiencies ad hoc group reviewed 2022 SIGMET test results in accordance with the *MET Deficiency Identification Guide*, as included in Appendix F to the Report of MET SG/25. The results of that review are presented in **Appendix A** to this paper.

2.2 Proposed actions are listed under each analysis table formed from the criteria in the *MET Deficiency Identification Guide*. The MET Deficiencies ad hoc group notes that many of these actions are already being undertaken by some organisations.

OPMET Monitoring Activity Review

2.3 The lead for the MET Deficiencies ad hoc group has conducted a preliminary review of the 2022 OPMET monitoring activities. While it is clear that there are some States that are not providing information regularly and/or in a timely manner, it is not clear what each of the statistics are actually referring to.

2.4 It is therefore proposed that the formal review of the OPMET Monitoring Activities by the MET Deficiencies ad hoc group is placed on hold until action MET/IE WG/20-05 *Invite interested WG members to form an ad hoc group to review the Performance Indices (PIs) used in APAC OPMET monitoring* is undertaken.

2.5 Furthermore, it is suggested that the MET/IE WG consider aligning the OPMET Monitoring Activity methodology to that which is undertaken by the ICAO EUR Region, as outlined in Appendix F to the *EUR OPMET Data Management Handbook*, which describes measuring the availability of aerodrome OPMET (not bulletins) and the timeliness of the reports getting to the monitoring centres, including creating State averages for each of these, for each aerodrome a State provides data for.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) Note the information in this paper;
b) Consider the proposed actions outlined in Appendix A and arrange relevant follow up work with States; and
c) Consider the OPMET Monitoring methodology undertaken by the ICAO EUR Region in the review of the APAC OPMET Monitoring methodology.

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APPENDIX A – Review of the ICAO APAC Regional SIGMET Test 2022 Outcomes

2022 Annual ICAO SIGMET Test Results

SIGMETs not received by any RODB:

APAC States	MWO	Missing SIGMET Type
Afghanistan	Kabul	WV, WS
Cambodia	Phnom Penh	WV (*WS, WC issued*)
DPR Korea	Sunan	WC, WV, WS
Myanmar	Yangon	WC (*WS, WV issued*)
Papua New Guinea	Port Moresby	WC, WV, WS
Nauru	Nauru	WC, WV, WS
Non-APAC States*	**MWO**	**Missing SIGMET Type**
United States	Anchorage	WC
	Kansas City (KZNY, KZMA, KZHU, TJZU)	WC (*WS, WV issued*)
Bahrain	Bahrain	WC
Iran	Tehran	WC
United Arab Emirates	Abu Dhabi	WC
Yemen	Sanna	WC

* Note, other non-APAC States also had MWOs participating in the tests.

Proposed actions:

- **APAC MET Secretariat confirm with other non-APAC MWOs whether they wish to participate in annual test.**
- **Cambodia to issue test WV SIGMET, RODBs to confirm receipt.**
- **Myanmar to issue test WC SIGMET, RODBs to confirm receipt.**

SIGMET/TCA/VAA not received by at least one RODB (issuer requested to check/update dissemination list and issue test message).

TCACs	Missing RODB(s)
TCAC New Delhi (FKIN20, FKIN21)	NFFN (1 of 4 did reach RODB Nadi)
TCAC Darwin	NFFN
TCAC Honolulu	VTBB, NFFN, RJTD
VAACs	**Missing RODB(s)**
VAAC Toulouse	VTBB, NFFN
VAAC Washington	VTBB, NFFN

Proposed action:

- **TCACs and VAACs listed above check their dissemination lists and issue test TCA/VAA respectively, RODBs to confirm receipt.**

TCACs	**Missing MWO receipt**
TCAC New Delhi	Kota Kinabalu
TCAC Tokyo	Nadi (Note: TCA did reach RODB Nadi)
TCAC La Reunion	Brisbane, Melbourne, Male, Mumbai
TCAC Miami	Tahiti, Kansas City (KZAK)
TCAC Honolulu	Tahiti
TCAC Nadi	Melbourne
VAACs	**Missing MWO receipt**
VAAC Tokyo	Dhaka, Kolkata, Yangon
VAAC Washington	Nadi
VAAC Toulouse	Chengdu, Urumqi, Xi'an, Ulaan Baatar
VAAC Darwin	Kolkata, Gia Lam (VVHN)

Note:

- Dhaka, Phnom Penh, Taibei, Karachi, Colombo, Honolulu did not reference TCAC issuer.
- Honolulu, Irkutsk, Khabarobsk/Novy, Jeddah did not reference VAAC issuer.

Proposed action:

- **TCACs and VAACs listed above check their dissemination lists and issue test TCA/VAA respectively, MWOs to confirm receipt.**
- **Update related documents such as IAVW Handbook.**

SIGMET delivery issues:

Issue	**MWO**	
Early issue time	Nadi (Note, Bangkok has already corrected this issue)	
Priority indicator	Phnom Penh, Honolulu, Kansas City, Kuwait, Jeddah	
Receipt > 5 min for all RODBs	WC WV WS	Wellington, Colombo Beijing, Chennai, Mumbai, Male, Karachi, Colombo Vientiane

Note – some SIGMETs received *before* SIGMET time of issuance DTG. Ignoring these for now.

Proposed action:

- **Nadi review internal test SIGMET procedures to ensure appropriate DTG used.**
- **Wellington, Colombo, Beijing, Chennai, Mumbai, Male, Karachi determine reason for >5min receipt time by RODBs.**
- **All MWOs listed, once issue corrected, issue test SIGMET(s) and RODBs confirm receipt and outcome of corrective action.**

Incorrect priority indicator:

APAC State	MWOs/VAACs/TCACs	Priority indicator	Product
United States	VAAC Washington	GG	VAA
United States	MWO Honolulu MWO Kansas City	GG DD	WC, WV WC, WV
Cambodia	MWO Phnom Penh	KK	WC, WS
Kuwait	MWO Kuwait	GG	WC
Saudi Arabia	MWO Jeddah	GG	WC

Proposed action:

- **Phnom Penh, Honolulu, Kansas City, Kuwait, Jeddah review priority indicator used for SIGMET test (noting some are non-APAC MWOs and may not participate going forward).**
- **Relevant sections to send our test product to confirm priority indictor updated.**