

ICAO APANPIRG – MET SG  
JULY 2024

**MET DEFICIENCY REPORT AND IDENTIFICATION GUIDE**

Introduction:

The Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) definition of an air navigation deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council or with related ICAO Standards and Recommended Practices (SARPs) and which situation negatively impacts the safety, regularity or efficiency of international civil aviation (Ref: APANPIRG Procedural Handbook, 6th Ed., 1 June 2020, Part V, section 2, paragraph 1.3).

The Twenty-Fifth Meeting of the Meteorology Sub-group (MET SG/25), of APANPIRG, held online from 18 to 22 October 2021, endorsed the “MET Deficiency Report Guide” template and “MET Deficiency Identification Guide” to assist States with reporting to ICAO on the rectification and identification of air navigation deficiencies in the field of meteorology (MET). [Decision MET SG/25-05: *MET Deficiencies template and guidance*, refers]

Subsequently, the Twenty-eighth Meeting of the Meteorology Sub-group (MET SG/28), of APANPIRG, held in Bangkok, Thailand, from 8 to 12 July 2024, approved updates to the “MET Deficiency Identification Guide” and “MET Deficiency Report Guide”. [Decision MET SG/28-05: *Update to MET Deficiency Identification Guide*, refers]

The latest version of the “MET Deficiency Identification Guide”, including the “Deficiency Reporting Guide”, is provided below.

**MET Deficiency Identification Guide**

12 July 2024

**Purpose**

Analysis of the annual ICAO SIGMET test and annual OPMET Monitoring activities undertaken as part of the work plan of the Meteorological Information Exchange Working Group will identify OPMET exchange issues. This document aims to guide the identification of potential deficiencies arising from the outcomes of these activities.

Unless specially outlined, these criteria shall be understood to apply to both traditional alphanumeric code (TAC) and IWXXM form messages.

Analysis of the monitoring activities is to provide information to support the Secretariat in identifying deficiencies, as outlined in APANPIRG Handbook Part V: Uniform Methodology for the Identification, Assessment and Reporting of Air Navigation Deficiencies.

A deficiency is to be applied only when there is no resolution planned and undertaken. The ICAO Secretariat may also provide other sources of MET deficiency information, and the principle of root cause analysis will also be used to determine an appropriate response.

Note – identifying a deficiency can be an opportunity for a State to use as evidence for the need for increased resources and assistance.

**Method**

**Annual ICAO SIGMET test**

Following the finalisation of the results of the annual ICAO SIGMET test, the following criteria will indicate when a possible MET deficiency for SIGMET, TCA and VAA issuance should be considered:

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- a) No RODB receives an expected SIGMET, TCA and/or VAA during the test.
  - If four or fewer RODBs receive a SIGMET, TCA and/or VAA, then the MWO shall be requested to update their dissemination list to include all RODBs and a test message shall be issued to confirm this update.
- b) User systems cannot ingest an expected SIGMET, TCA and/or VAA.
  - A message may contain format errors. Minor errors, such as priority indicators, should be communicated directly to the issuing centre for resolution, followed by a test message to confirm the correct format/bulletin information.
- c) A SIGMET, TCA and/or VAA is not received by *any* RODB within 5 minutes of issuance (referring to Annex 3 Appendix 10 section 1.1 “*Messages and bulletins containing operational meteorological information shall achieve transit times of less than 5 minutes, unless otherwise determined to be lower by regional air navigation agreement.*”).
  - States to undertake root cause analysis, with assistance from deficiencies ad hoc group, to determine reason for slow dissemination or receipt (eg internal process requiring email to ATS to disseminate via AFS on behalf of MWO).
- d) IWXXM form test SIGMET, TCA and/or VAA are not successfully validated and/or successfully translated (where relevant).

APAC RODB Annual OPMET Monitoring

Following finalisation of the results of the APAC RODB Annual OPMET Monitoring, the following criteria will indicate when a possible MET deficiency should be considered, noting that these criteria apply for both TAC and IWXXM form messages:

- a) No RODB receives a METAR/SPECI or TAF for aerodromes in Table MET-II-2 during the OPMET Monitoring.
  - If four or fewer RODBs receive a METAR/SPECI or TAF, then the NOC or ROC shall be requested to update their dissemination list to include all RODBs and the RODBs will be requested to confirm receipt once complete.
- b) A Table MET II-2 METAR/SPECI or TAF with an availability and/or timeliness score of less than 95% (referring to the availability and timeliness defined in the ROBEX Handbook, threshold to be reviewed regularly).
  - NOC to provide information to explain the score. If a resolution can be made quickly, RODBs will be requested to confirm the resolution by compiling one month’s statistics. If the resolution requires a longer term (i.e. greater than six months but to be determined on a case-by-case basis), consider deficiency.
- c) A Table MET II-2 METAR/SPECI or TAF in IWXXM form with successful validation and/or translation (where applicable) scores of less than 95%.

Any other potential deficiency source

The ICAO Secretariat may identify other sources of information that could indicate a MET deficiency and, if appropriate, request the ad hoc group on deficiency under MET SG to assist with root cause analysis.

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Deficiency Resolution Support

Once a MET deficiency has been applied (and for existing MET deficiencies), the following steps may be followed by the ad hoc group on deficiencies:

1. Engage with State holding a deficiency, to assist in carrying out a root cause analysis of the issue.
2. Develop a Corrective Action Plan (CAP) (template to be developed) with the State to resolve the issue and collect evidence to show resolution. The CAP may include developing tests/exercises to support the deficiency resolution.
3. Assist State in compiling a report to ICAO outlining evidence of resolution deficiency. States may find the MET deficiency report guide (Attachment to this Guide) useful in drafting a report.

*Note – the ad hoc group on deficiencies will assist the State in the deficiency resolution; however, the State is responsible for the work being carried out and for ensuring the resolution remains in place.*

**Attachment to MET Deficiency Identification Guide – Deficiency Reporting Guide**

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**Agenda Item x: choose from provisional agenda items**

**UPDATE ON MET DEFICIENCY AP-MET-xx**

(Presented by <name of State or Organisation>)

**SUMMARY**

*<Use this section to summarise the paper e.g. This paper outlines the work done by <State name> on resolving deficiency AP-MET-xx. If this is a progress update to inform of actions taken to date, then use an information paper template. For providing information to support a deficiency resolution, use a working paper template.>*

**1. INTRODUCTION**

1.1 *<Describe the deficiency – e.g. APANPIRG deficiency AP-MET-xx refers to METAR from xxxx aerodrome not being available on a regular basis.>*

**2. DISCUSSION**

**Corrective Action Plan and Implementation**

2.1 *<Use this section to describe the actions taken or planned to resolve the deficiency e.g. regular METARs are now provided from the aerodrome or an AWS will be installed later in the year or information on volcanic activity is now provided to various organisations. Give some details on how these corrective actions help resolve the deficiency. The Corrective Action Plan can be provided as an attachment to the paper.>*

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Evidence of MET deficiency resolution

2.2           <Use this section to outline evidence of deficiency resolution or progress – e.g. letter from local airlines, ATS, MWO, VAAC, etc and/or results from OPMET monitoring, results of SIGMET test or other evidence as appropriate. Evidence such as letters can be included as an appendix to the paper and be referred to in this section.>

**3. ACTION BY THE MEETING**

3.1           <If this is a working paper, you can request the meeting to carry out an action – e.g. agreeing that the deficiency should be resolved and making a recommendation to APANPIRG to remove it from the deficiency list. If this is an information paper, you can request the meeting to note the progress of the deficiency resolution work.>

*[Example for WP]*

3.1 The meeting is invited to:

- i. Note the information contained in this paper; and
- ii. formulate a Draft Conclusion for the removal of the deficiency AP-MET-xx from the APANPIRG Deficiency Database.

*[Example for IP]*

3.1 The meeting is invited to note the information on the progress of the deficiency resolution work contained in this paper.

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<If adding attachments such as letters or monitoring results, include them here under the main body of the paper.>