# MET Deficiencies: What they are and how to avoid them!

INTERNATIONAL CIVIL AVIATION ORGANIZATION

# Paula Acethorp

Chief Meteorological Officer – CAA NZ

Chair – Meteorology Sub-group

# Addressing MET Deficiencies

What is a deficiency?

MET deficiencies overview

Common compliance gaps

Resolving deficiencies

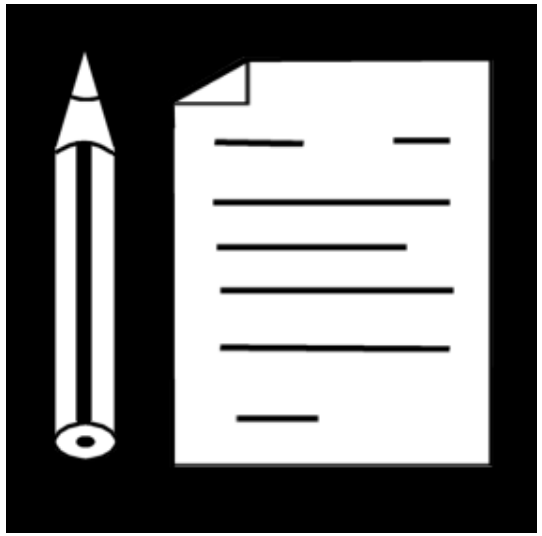
# 1

# What is a deficiency?

# Definition of Deficiency

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**, and which situation has a **negative impact on the safety, regularity and/or efficiency** of international civil aviation.

(APANPIRG Procedural Handbook)

# Deficiency Identification

- Monitoring activities (SIGMET test, OPMET monitoring)
- Accident investigations
- User reports
- Meetings
- ICAO missions
- Exercises etc

Information is provided to ICAO Regional Office to review, discuss with State, and then determine if deficiency is warranted (as per APANPIRG Procedural Handbook).

ICAO

# Monitoring APAC MET Information Provision

- SIGMET test
  - Covers volcanic ash & tropical cyclone advisory centres, soon to include State volcano observatories.
  - Provides overview of comms connections – are advisories & SIGMETs being sent/received as expected?
  - Are IWXXM form messages being exchanged?

- OPMET monitoring
  - Undertaken during November each year, covers TAFs and METARs.
  - Looks to see if information is timely, complete and well formatted (through IWXXM validation)

# 2

# MET deficiencies overview

# APAC Deficiencies in the MET Field

**Current deficiencies**:

- Reporting – METAR/SPECI or METAR-AUTO not being provided as per air navigation plan
- SIGMET provision – not being provided/disseminated and/or not in ICAO compliant format
- Volcanic activity information provision – SVOs being designated, information being delivered to necessary recipients
- WAFS information provision – becoming less relevant as users obtain WAFS data via flight planning tool providers

***All in place for at least 15 years***

**Recently proposed deficiencies**:

- Lack of IWXXM format MET products (sometimes highlights TAC formatting issues)

# 3

# Common compliance gaps

# Current deficiencies - what's needed to resolve?

- If it's all fixed now or there is no longer a requirement - just have to tell ICAO!
  - Requires gathering of evidence from RODBs, stakeholders, users.
- Local practice for international messages
  - Adding on RMKs to METARs, SIGMETs, or adding QNH/temperature to TAFs – can't be ingested by stakeholder software, as non-compliant formatting.
- Typos/formatting
  - If MET services don't have software that restricts formatting to PANS-MET templates only, then clear procedures and templates are crucial.
- Dissemination
  - Messages need to be timely and ideally delivered automatically via AMHS – this could be in coordination with another organisation who has access.
- Air Navigation Plan just not up to date
  - States need to ensure the MET Tables reflect actual requirements (e.g trend service!)

# 4

# Resolving deficiencies

# Steps towards resolving deficiencies… (1/2)

- Procedures! Need to document what you do – they ensure a consistent service *and* serve as evidence of deficiency resolution.
  - Talk to MET services in other States – do they have procedures they could share? Easier than starting from scratch…
- Talk to other aviation organisations in your State – can they assist with dissemination?
  - Remember – deficiencies are on the **State**, not the service provider. Sometimes needs a State solution.
- Practice! Exercises, tests – any way to determine what's working well and what needs improving.
  - Lean on associated advisory centres or ROCs/RODBs to help.
- Engage with your Civil Aviation Authority – they may be able to assist in some stakeholder conversations.

# Steps towards resolving deficiencies… (2/2)

- Of course, also can talk to the Regional Office.  States may seek ICAO assistance to resolve APANPIRG air navigation deficiencies through:
  - Validation and corrective action plan development;
  - Direct engagement with the ICAO Asia/Pacific Regional Office technical specialists;
  - Arranging technical support from APANPIRG Sub-Groups;
  - Facilitating regional coordination and escalation via APANPIRG;
  - Access to ICAO technical and cooperative assistance mechanisms.

# Thank You


ICAO