

*International Civil Aviation Organization*

ICAO

## INFORMATION PAPER (IP/13)

ICAO ASIA AND PACIFIC (APAC)  
THIRTIETH MEETING OF THE METEOROLOGY  
SUB-GROUP (MET SG/30)

Bangkok, Thailand, 20 - 24 July 2026

**Agenda Item 8: Research, Development and Other Initiatives****DEVELOPMENT OF A TOOL FOR QUALITY CHECK OF METAR AND SPECI REPORTS**

(Presented by Philippines)

**SUMMARY**

This paper presents the Philippines' initiative to develop a tool for the immediate review of disseminated METAR and SPECI reports. This ongoing initiative assists operational personnel in identifying common coding and reporting errors for timely corrective action. Future development aims to support quality control prior to the dissemination.

**1. INTRODUCTION**

1.1 The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), which serves as the National OPMET Centre (NOC) for the Philippines, disseminates OPMET data in TAC format through the AMHS/AFTN workstation of the Civil Aviation Authority of the Philippines (CAAP). The State fulfils the obligation for IWXXM format distribution through the translation support provided by Hong Kong ROC.

1.2 Section 6.2.5 of the ICAO APAC ROBEX Handbook states the responsibility of the NOCs for the quality control of METAR and SPECI reports and, where necessary, the immediate correction of erroneous messages.

1.3 To support this responsibility, PAGASA initiated the development of Aviation Lexical Error Review Tool (ALERT), which is intended to facilitate prompt review of disseminated METAR and SPECI reports and enable timely corrective action where necessary.

**2. DISCUSSION**METAR and SPECI Data Dissemination

2.1 The dissemination of OPMET data via the AMHS currently involves manual encoding. While the establishment of a secure network between CAAP and PAGASA systems is still in progress, integration of a quality control application with AMHS system is not yet possible. Consequently, a review of METAR and SPECI reports is performed immediately after dissemination by utilizing internet-based sources.

2.2 ALERT provides a graphical user interface through which operational personnel may initiate the retrieval of most recent METAR and SPECI reports and perform quality checks for common

coding errors, omitted parameters, non-standard code groups, and selected meteorological inconsistencies.

2.3 When an error has been identified and confirmed, a corrected METAR or SPECI report is issued in accordance with established procedures. Although validation is currently performed after dissemination, the tool makes significant contribution to the quality assurance process for aerodrome meteorological observations. It also serves as a training aid by providing immediate visual feedback on possible coding errors, thereby supporting the continued competency of operational personnel.

#### Future Improvement Plan

2.4 PAGASA intends to further enhance ALERT to support quality control prior to dissemination, subject to future integration with the CAAP's AMHS. This enhancement is expected to strengthen operational quality assurance by enabling potential coding and consistency issues to be identified before reports are transmitted. The initiative may be of interest to other States facing similar operational constraints, particularly where manual encoding of OPMET messages remains in use.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper.

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MET SG/30  
Appendix A to IP/13

**APPENDIX A: Some Screenshots of ALERT**

**ALERT with actual METAR error**

Aviation Lexical Error Review Tool (ALERT) version 1.0

DOST-PAGASA  
Weather Division  
Aeronautical Meteorological Services Section

About ALERT

Fetch METARs Check METARs Save Record View Records Add Time Sent

EXIT

2026-06-26: METAR RPLL 260800Z 28015KT 9999 FEW023CB SCT025 Q1008 NOSIG RMK A2977 CB E  
2026-06-26: METAR RPVM 260800Z 22008KT 9999 NSC 31/25 Q1008 RETS NOSIG RMK A2977  
2026-06-26: METAR RPMD 260800Z 29003KT 250V330 9999 VCSH FEW015CB OVC090 29/23 Q1009 RMK A2980 CB/VCSH SW  
2026-06-26: METAR RPLB 260800Z 18010KT 9999 SCT019 BKN080 28/25 Q1009 NOSIG RMK A2980  
2026-06-26: METAR RPLC 260800Z 20010KT 8000 -SHRA FEW015CB BKN020 29/24 Q1008 RMK A2977 CB NE  
2026-06-26: METAR RPLI 260800Z 22014KT 9999 FEW018TCU BKN270 31/27 Q1006 NOSIG RMK A2971 TCU E  
2026-06-26: METAR RPMZ 260800Z 04004KT 010V080 9999 FEW017 SCT090 29/24 Q1010 RMK A2983  
2026-06-26: METAR RPVP 260800Z 24010KT 9999 FEW019 SCT080 BKN240 30/25 Q1009 RMK A2980  
2026-06-26: METAR RPMR 260800Z 17006KT 9999 SCT017CB BKN080 28/24 Q1010 RMK A2983 CB E  
2026-06-26: METAR RPVK 260800Z 27008KT 9999 VCTS FEW013CB SCT016 BKN240 31/24 Q1008 RMK A2977 CB E,SE,S  
2026-06-26: METAR RPVD 260800Z 32008KT 9999 FEW015 30/25 Q1008 RMK A2977

Missing/Incorrect... X

RPL:  
Missing: ttd

OK

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Export Data

Time Sent:

Communicator: EAD

**ALERT with intentionally introduced METAR errors for purpose of demonstration**

Aviation Lexical Error Review Tool (ALERT) version 1.0

DOST-PAGASA  
Weather Division  
Aeronautical Meteorological Services Section

About ALERT

Fetch METARs Check METARs Save Record View Records Add Time Sent

EXIT

2026-06-26: METAR RPLL 260800Z 28015KT 9999 FEW023CB SCT025 Q1008 NOSIG RMK A2977 CB E  
2026-06-26: METAR RPVM 260800Z 22008KT 9999 NSC 31/35 Q1008 RETS NOSIG RMK A2977  
2026-06-26: METAR RPMD 260800Z 29003KT 250V330 9999 VCSH FEW015CB OVC090 29/23 Q1009 RMK A2980 CB/VCSH SW  
2026-06-26: METAR RPLB 260800Z 18010KT 9999 SCT019 BKN080 28/25 Q1008 NOSIG RMK A2980  
2026-06-26: METAR RPLC 260800Z 20010KT 8000 -SHRA FW015CB BKN020 29/24 Q1008 NOSIG RMK A2977 CB NE  
2026-06-26: METAR RPLI 260800Z 22014KT 999 FEW018TCU BKN270 31/27 Q1006 NOSIG RMK A2971 TCU E  
2026-06-26: METAR RPMZ 260800Z 04004KT 010V050 9999 FEW017 SCT090 29/24 Q1010 RMK A2983  
2026-06-26: METAR RPVP 260800Z 24010KT 9999 FEW019 SCT010 BKN240 30/25 Q1009 RMK A2980  
2026-06-26: METAR RPMR 260800Z 17006KT 9999 SCT017CB BKN080 28/24 Q101 RMK A2983 CB E  
2026-06-26: METAR RPVK 260800Z 27008KT 9999 VCRA FEW013CB SCT016 BKN240 31/24 Q1008 RMK A2977 CB E,SE,S  
2026-06-26: METAR RPVD 260800Z 32008KT 9999 CAVOK 30/25 Q1008 RMK A2977

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Export Data

Time Sent:

Communicator: EAD

Note: METAR or SPECI with colored or highlighted texts contain possible errors.