

International Civil Aviation Organization

ICAO

INFORMATION PAPER (IP/07)

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

Bangkok, Thailand, 18 - 22 August 2025

Agenda Item 5: Planning and monitoring**VONA UPDATES BY THE UNITED STATES IN NOVEMBER 2025**

(Presented by the United States of America)

SUMMARY

Volcano Observatory Notice for Aviation (VONA) to be transmitted by the United States (U.S.) on or around November 2025.

1. INTRODUCTION

1.1 The content and format of the VONA is defined by the International Civil Aviation Organization (ICAO) Annex 3 – *Meteorological Service for International Air Navigation* (Annex 3) and in the accompanying ICAO *Procedures for Air Navigation Services – Meteorology* (PANS-MET, Doc 10157). Amendment 82 of Annex 3 elevates the VONA to a recommended practice for State Volcano Observatories (SVOs) to disseminate them in abbreviated plain language format and in ICAO Meteorological Information Exchange Model (IWXXM) format with an implementation date of November 2025. This paper will highlight the US plans and timelines to meet the new requirements for the dissemination of the VONA.

2. DISCUSSION

2.1 The VONA is a notification product used by SVOs around the world to inform the aviation community (e.g., meteorologists, air traffic managers, pilots, and dispatchers) of volcanic activity that could pose a hazard to aviation. Within the U.S., the U.S. Geological Survey (USGS) operates five SVOs (Appendix A) through its Volcano Science Center. In that role, the USGS has been designated to oversee the issuance of the VONAs.

2.2 Because the USGS SVOs do not have a direct connection to the Aeronautical Fixed Service, they will use a special email tool available at the Washington Inter-regional OPMET Gateway (IROG) to send the VONA to the Washington IROG, where it will be distributed to the world.

- An example of the VONA in abbreviated plain language format is in Appendix B.
- Proposed new World Meteorological Organization (WMO) identifiers (ID) for the SVOs related to the APAC region are in Appendix C.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to note the information contained in this paper.

Appendix A (USGS SVOs and proposed WMO Identifier)

Alaska Volcano Observatory (PAVO),
California Volcano Observatory (KCAL),
Cascades Volcano Observatory (KCAS),
Hawaiian Volcano Observatory (PHVO),
Yellowstone Volcano Observatory (KYVO).

Appendix B

Example VONA in abbreviated plain language format (sometimes referred to as the TAC format)

VONA
DTG: 20231003/1412Z
VOLCANO: SHISHALDIN 311360
PSN: N5445 W16358
AREA: ALEUTIANS
SOURCE ELEV: 9373FT AMSL
NOTICE NR: 2023/125
CURRENT COLOUR CODE: RED
PREVIOUS COLOUR CODE: ORANGE
SVO: ALASKA VOLCANO OBSERVATORY
ACT STS: ERUPTION OCCURRED
ONSET: 20231003/1350Z
DUR: ONGOING CONS
VA CLD HGT: 40000FT AMSL
HGT SOURCE: SATELLITE
MOV: S
CTC: ALASKA VOLCANO OBSERVATORY DUTY SCIENTIST, TEL +1-907-786-7497
RMK: SIG VA EM OBS IN SATELLITE AT 20231003/1350Z. VA EM EXP TO BE CONS FOR SEVERAL HR.
NXT NOTICE: A NEW VONA WILL BE ISSUED IF COND CHANGE SIGNIFICANTLY OR IF THE COLOUR CODE CHANGES

Appendix C
WMO IDs for VONAs in abbreviated plain language (TAC) and IWXXM formats

Alaska TAC VONAs:

WMAK01 PAVO	WMAK02 PAVO	WMAK03 PAVO
WMAK04 PAVO	WMAK05 PAVO	WMAK06 PAVO

Alaska IWXXM VONAs:

LMAK01 PAVO	LMAK02 PAVO	LMAK03 PAVO
LMAK04 PAVO	LMAK05 PAVO	LMAK06 PAVO

Commonwealth of the Northern Mariana Islands (CNMI) TAC VONAs:

WMPN01 PAVO	WMPN02 PAVO	WMPN03 PAVO
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Commonwealth of the Northern Mariana Islands (CNMI) IWXXM VONAs:

LMPN01 PAVO	LMPN02 PAVO	LMPN03 PAVO
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American Samoa TAC VONAs:

WMPS01 PHVO	WMPS02 PHVO
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American Samoa IWXXM VONAs:

LMPS01 PHVO	LMPS02 PHVO
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Hawaii TAC VONAs:

WMPA01 PHVO	WMPA02 PHVO	WMPA03 PHVO
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Hawaii IWXXM VONAs:

LMPA01 PHVO	LMPA02 PHVO	LMPA03 PHVO
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Continental United States TAC VONAs:

WMUS01 KCAL	WMUS02 KCAL	WMUS03 KCAL
WMUS01 KCAS	WMUS02 KCAS	WMUS03 KCAS
WMUS01 KYVO	WMUS02 KYVO	WMUS03 KYVO

Continental United States IWXXM VONAs:

LMUS01 KCAL	LMUS02 KCAL	LMUS03 KCAL
LMUS01 KCAS	LMUS02 KCAS	LMUS03 KCAS
LMUS01 KYVO	LMUS02 KYVO	LMUS03 KYVO

END
