



Civil Aviation Safety Authority
of Papua New Guinea

Advisory Circular

AC175-9

ASHTAM

Initial Issue

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GENERAL

Civil Aviation Authority Advisory Circulars (AC) contain information about standards, practices and procedures that the Director has found to be an Acceptable Means of Compliance (AMC) with the associated rule.

An AMC is not intended to be the only means of compliance with a rule, and consideration will be given to other methods of compliance that may be presented to the Director. When new standards, practices or procedures are found to be acceptable, they will be added to the appropriate Advisory Circular.

PURPOSE

This Advisory Circular provides methods, acceptable to the Director, for showing compliance with the aerodrome certification exposition requirements of Part 175 and explanatory material to assist in showing compliance.

RELATED CAR

This AC relates specifically to Civil Aviation Rule 175.257 – NOTAM Format.

CHANGE NOTICE

There was no previous issue of this AC and consequently no change is in effect.

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CHAPTER 1 – SPECIFICATIONS FOR ASHTAM

The international exchange of ASHTAM shall include volcanic ash advisory centres and the centres designated by regional air navigation agreement for the operation of AFS Secure Aviation Data Information Service (SADIS) and the World Area Forecast System (WAFS) Internet file service (WIFS), and shall take account of the requirements of long-range operations.

1.1 Instructions for completion of the ASHTAM

- (1) The ASHTAM provides information on the status of activity of a volcano when a change in its activity is, or is expected to be, of operational significance. This information is provided using the volcano level of alert colour code given in (e) below.
- (2) In the event of a volcanic eruption producing ash cloud of operational significance, the ASHTAM also provides information on the location, extent and movement of the ash cloud and the air routes and flight levels affected.
- (3) Issuance of an ASHTAM giving information on a volcanic eruption, in accordance with paragraph (c) below, should not be delayed until complete information A) to K) is available but should be issued immediately following receipt of notification that an eruption has occurred or is expected to occur, or a change in the status of activity of a volcano of operational significance has occurred or is expected to occur, or an ash cloud is reported. In the case of an expected eruption, and hence no ash cloud evident at that time, items A) to E) should be completed and items F) to I) indicated as “not applicable”. Similarly, if a volcanic ash cloud is reported, e.g. by special air-report, but the source volcano is not known at that time, the ASHTAM should be issued initially with items A) to E) indicated as “unknown”, and items F) to K) completed, as necessary, based on the special air-report, pending receipt of further information. In other circumstances, if information for a specific field A) to K) is not available, indicate “NIL”.
- (4) The maximum period of validity of ASHTAM is 24 hours. New ASHTAM shall be issued whenever there is a change in the level of alert.

1.2 Abbreviated heading

Following the usual aeronautical fixed telecommunication network (AFTN) communications header, the abbreviated heading “TT AAiiii CCCC MMYYGggg (BBB)” is included to facilitate the automatic processing of ASHTAM messages in computer data banks. The explanation of these symbols is:

- TT = data designator for ASHTAM = VA;
- AA = geographical designator for States, e.g. NZ = New Zealand (see Location Indicators (Doc 7910), Part 2, Index to Nationality Letters for Location Indicators);
- iiii = ASHTAM serial number in a four-figure group;
- CCCC = four-letter location indicator of the flight information region concerned (see Location Indicators (Doc 7910), Part 5, addresses of centres in charge of FIR/UIR);
- MMYYGGgg = date/time of report, whereby:

MM = month, e.g. January = 01, December = 12

YY = day of the month

GGgg = time in hours (GG) and minutes (gg) UTC;

(BBB) = Optional group for correction to an ASHTAM message previously disseminated with the same serial number = COR.

Note:- Brackets in (BBB) are used to indicate that this group is optional.

Example: Abbreviated heading of ASHTAM for Auckland Oceanic FIR, report on 7 November at 0620 UTC:

VANZ0001 NZZO 11070620

1.3 Content of ASHTAM

Item A — Flight information region affected, plain-language equivalent of the location indicator given in the abbreviated heading, in this example “Port Moresby FIR”.

Item B — Date and time (UTC) of first eruption.

Item C — Name of volcano, and number of volcano as listed in the Manual on Volcanic Ash, Radioactive Material and Toxic Chemical Clouds (Doc 9691), Appendix E, and on the World Map of Volcanoes and Principal Aeronautical Features.

Item D — Latitude/Longitude of the volcano in whole degrees or radial and distance of volcano from NAVAID as listed in Doc 9691, Appendix E, and on the World Map of Volcanoes and Principal Aeronautical Features).

Item E — Colour code for level of alert indicating volcanic activity, including any previous level of alert colour code as follows:

1.4 Alert color code

Level of alert colour code	Status of activity of volcano
GREEN ALERT	<p>Volcano is in normal, non-eruptive state.</p> <p>or, after a change from a higher alert level:</p> <p>Volcanic activity considered to have ceased, and volcano reverted to its normal, non-eruptive state.</p>
YELLOW ALERT	<p>Volcano is experiencing signs of elevated unrest above known background levels.</p> <p>or, after a change from a higher alert level:</p> <p>Volcanic activity has decreased significantly but continues to be closely monitored for possible renewed increase.</p>
ORANGE ALERT	<p>Volcano is exhibiting heightened unrest with increased likelihood of eruption.</p> <p>or, Volcanic eruption is underway with no or minor ash emission [specify ash-plume height if possible].</p>

RED ALERT

Eruption is forecast to be imminent with significant emission of ash into the atmosphere likely.

or,

Eruption is underway with significant emission of ash into the atmosphere [specify ash-plume height if possible].

Note: The colour code for the level of alert indicating the status of activity of the volcano and any change from a previous status of activity should be provided to the area control centre by the responsible vulcanological agency in the State concerned, e.g. “RED ALERT FOLLOWING YELLOW” OR “GREEN ALERT FOLLOWING ORANGE”.

- Item F — If volcanic ash cloud of operational significance is reported, indicate the horizontal extent and base/top of the ash cloud using latitude/longitude (in whole degrees) and altitudes in thousands of metres (feet) and/or radial and distance from source volcano. Information initially may be based only on special air-report, but subsequent information may be more detailed based on advice from the responsible meteorological watch office and/or volcanic ash advisory centre.
- Item G — Indicate forecast direction of movement of the ash cloud at selected levels based on advice from the responsible meteorological watch office and/or volcanic ash advisory centre.
- Item H — Indicate air routes and portions of air routes and flight levels affected, or expected to become affected.
- Item I — Indicate closure of airspace, air routes or portions of air routes, and availability of alternative routes.
- Item J — The source of the information (e.g. “special air-report” or “vulcanological agency”) should always be indicated, whether an eruption has actually occurred or ash cloud reported, or not.
- Item K — Include in plain language any operationally significant information additional to the foregoing.

Appendix 1 ASHTAM Format

[illegible]

ASHTAM	(SERIAL NUMBER)	
(FLIGHT INFORMATION REGION AFFECTED)		A)
(DATE/TIME (UTC) OF ERUPTION)		B)
(VOLCANO NAME AND NUMBER)		C)
(VOLCANO LATITUDE/LONGITUDE OR VOLCANO RADIAL AND DISTANCE FROM NAVAID)		D)
(VOLCANO LEVEL OF ALERT COLOUR CODE, INCLUDING ANY PRIOR LEVEL OF ALERT COLOUR CODE) ³		E)
(EXISTENCE AND HORIZONTAL/VERTICAL EXTENT OF VOLCANIC ASH CLOUD) ⁴		F)
(DIRECTION OF MOVEMENT OF ASH CLOUD) ⁴		G)
(AIR ROUTES OR PORTIONS OF AIR ROUTES AND FLIGHT LEVELS AFFECTED)		H)
(CLOSURE OF AIRSPACE AND/OR AIR ROUTES OR PORTIONS OF AIR ROUTES, AND ALTERNATE AIR ROUTES AVAILABLE)		I)
(SOURCE OF INFORMATION)		J)
(PLAIN-LANGUAGE REMARKS)		K)
<p>NOTES:</p> <ol style="list-style-type: none"> 1. See also Appendix 7 regarding addressee indicators used in predetermined distribution systems. 2. *Enter ICAO nationality letter as given in ICAO Doc 7910, Part 2. 3. See paragraph 3.5 below. 4. Advice on the existence, extent and movement of volcanic ash cloud G) and H) may be obtained from the Volcanic Ash Advisory center(s) responsible for the FIR concerned. 5. Item titles in brackets () not to be transmitted. 		