

RACPTF Flimsy 1: Information on New Zealand SUA operations for Volcanic Ballistic Ejecta

The following is an excerpt from New Zealand AIP regarding Volcanic Hazard Zones (VHZ, http://www.aip.net.nz/pdf/ENR_5.3.pdf):

3 VOLCANIC HAZARD ZONES

3.1 General

3.1.1 Volcanic Hazard Zones (VHZ) have special conditions that must be complied with before entry and operation within the airspace. There is no administering authority for entry to volcanic hazard zones.

3.1.2 Volcanic Hazard Zones are depicted on charts with the designation V---.

3.1.3 VHZ are established to provide increased protection to aircraft in an area where volcanic activity may be present. Operation within a VHZ requires pilots to operate in VMC by day, in order to be able to observe any volcanic ejecta or ash plume. Pilots intending to operate within a VHZ must therefore receive relevant NOTAM and SIGMET information.

3.1.4 Volcanic activity at other places may require a temporary VHZ to be designated.

3.2 List of VHZ

3.2.1 VHZ, with geographical coordinates, are listed in the Air Navigation Register.

3.2.2 A list of VHZ (not including geographic coordinates) is provided in Table ENR 5.3-3.

**Table ENR 5.3-3
Volcanic Hazard Zones**

Code	Name, location	Vertical limits	Active
1	2	3	4
NZV010	Raoul Island, Kermadec Islands	SFC – 4500 ft	Permanent
NZV215	White Island, Bay of Plenty	SFC – 4500 ft	Permanent
NZV312	Mt. Tongariro, Central N.I.	SFC – 9500 ft	Permanent
NZV313	Mt. Ngauruhoe, Central N.I.	SFC – 10,500 ft	Permanent
NZV314	Mt. Ruapehu, Central N.I.	SFC – 12,200 ft	Permanent

3.3 VHZ Alert Levels

3.3.1 VHZ provide protection when the volcano source is at Alert Level One. During an increase in volcanic activity permanent VHZ may be increased in size with the full extent of ash cloud being advised by SIGMET. The lateral and upper vertical limits will be amended in accordance with Table ENR 5.3-4, and notification of any change in dimensions will be via NOTAM.

**Table ENR 5.3-4
VHZ Alert Level Dimensions**

Alert Level	Radius from Vent (NM)	Upper limit
One	3	Refer Table ENR 5.3-3
Two	8	FL150
Three	16	FL330
Four	27	FL480
Five	50	FL660

3.4 Volcanic Activity Events — ATS Procedures

3.4.1 Terrain contour levels depicted on ATC radar take into account the lateral and vertical dimensions of the volcanic hazard zones at Alert Level One.

3.4.2 Published instrument flight procedures do not take into account the lateral and vertical dimensions of the volcanic hazard zones at Alert Level One.

3.4.3 ATC will not clear an aircraft to operate on any route or procedure that infringes the VHZ, unless specifically requested by the pilot during daylight hours only. Aircraft under radar control will be vectored clear of the boundary of any VHZ, unless specifically requested otherwise by the pilot. Pilots and operators should amend flight plans as necessary.

3.4.4 Volcanic activity reports received by ATS units will be passed on to MetService, CAA, Institute of Geological and Nuclear Sciences (IGNS), regular airline and freight operators, and aircraft that may be affected by the activity.

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3.4.5 ATC will not separate aircraft from the extent of an ash cloud, as advised by SIGMET or reported by pilots, as it is the responsibility of the pilot to evaluate the information and request an alternative route.

3.4.6 If the activity level of a Volcanic Hazard Zone changes, a NOTAM is issued redefining the dimensions of a volcanic hazard zone (refer table ENR 5.3-4). An additional NOTAM will be issued advising which ATS routes and instrument procedures infringe the redefined VHZ.

The following is an excerpt from New Zealand Civil Aviation Rule Part 71 (Airspace Designation, http://www.caa.govt.nz/rules/Rule_Consolidations/Part_071_Consolidation.pdf):

71.159 Volcanic hazard zones

(a) The Director may designate a portion of airspace as a volcanic hazard zone if volcanic activity (such as flying rocks, gas plumes, and ash clouds) may present a hazard to aircraft.

(b) The Director must identify each volcanic hazard zone by the ICAO nationality letters of the applicable State followed by the letter “V” followed by a number.

The following is an excerpt from New Zealand Civil Aviation Rule Part 91 (General Flight Rules, http://www.caa.govt.nz/rules/Rule_Consolidations/Part_091_Consolidation.pdf):

91.137 Volcanic hazard zones

A pilot must not operate an aircraft within a volcanic hazard zone designated under Part 71—

- (1) during the night; or
- (2) in IMC; or
- (3) in VMC during the day unless the pilot determines that, after considering all of the following, the volcanic hazard will not affect the safety of the flight:
 - (i) relevant meteorological information contained in SIGMET;

- (ii) NOTAM information;
- (iii) other information provided for this purpose by an organisation that holds a meteorological service certificate issued by the Director under the Act and Part 174.