

The New Zealand Volcanic Alert Level (VAL) System

New Zealand Volcanic Alert Level System			
Volcanic Alert Level	Volcanic Activity	Most Likely Hazards	
Eruption	5	Major volcanic eruption	Eruption hazards on and beyond volcano*
	4	Moderate volcanic eruption	Eruption hazards on and near volcano*
	3	Minor volcanic eruption	Eruption hazards near vent*
Unrest	2	Moderate to heightened volcanic unrest	Volcanic unrest hazards, potential for eruption hazards
	1	Minor volcanic unrest	Volcanic unrest hazards
	0	No volcanic unrest	Volcanic environment hazards

An eruption may occur at any level, and levels may not move in sequence as activity can change rapidly.

Eruption hazards depend on the volcano and eruption style, and may include explosions, ballistics (flying rocks), pyroclastic density currents (fast moving hot ash clouds), lava flows, lava domes, landslides, ash, volcanic gases, lightning, lahars (mudflows), tsunami, and/or earthquakes.

Volcanic unrest hazards occur on and near the volcano, and may include steam eruptions, volcanic gases, earthquakes, landslides, uplift, subsidence, changes to hot springs, and/or lahars (mudflows).

Volcanic environment hazards may include hydrothermal activity, earthquakes, landslides, volcanic gases, and/or lahars (mudflows).

***Ash, lava flow, and lahar (mudflow) hazards may impact areas distant from the volcano.**

This system applies to all of New Zealand's volcanoes. The Volcanic Alert Level is set by GNS Science, based on the level of volcanic activity. For more information, see geonet.org.nz/volcano for alert levels and current volcanic activity, gns.cri.nz/volcano for volcanic hazards, and getthru.govt.nz for what to do before, during and after volcanic activity. Version 3.0, 2014.

ICAO Aviation Volcano Colour Code

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

Volcanic Alert Levels

<i>Volcanic Alert Level</i>	<i>Radius from Vent (nm)</i>	<i>Upper Limit</i>
<i>RUAPEHU Volcanic Hazard Zone (NZV 314)</i>		
0	3	12,200ft AMSL
1	3	12,200ft AMSL
2	8	FL 150
3	16	FL 330
4	27	FL 480
5	>50	Unlimited
<i>NGAURUHOE Volcanic Hazard Zone (NZV 313)</i>		
0	3	10,500ft AMSL
1	3	10,500ft AMSL
2	8	FL 150
3	16	FL 330
4	27	FL 480
5	>50	Unlimited
<i>TONGARIRO Volcanic Hazard Zone (NZV 312)</i>		
0	3	9,500ft AMSL
1	3	9,500ft AMSL
2	8	FL 150
3	16	FL 330
4	27	FL 480
5	>50	Unlimited
<i>WHITE ISLAND Volcanic Hazard Zone (NZV 211)</i>		
0	3	4,500ft AMSL
1	3	4,500ft AMSL
2	8	FL 150
3	16	FL 330
4	27	FL 480
5	>50	Unlimited
<i>RAOUL ISLAND Volcanic Hazard Zone (NZV 010)</i>		
0	3	5,000ft AMSL
1	3	5,000ft AMSL
2	8	FL 150
3	16	FL 330
4	27	FL 480
5	>50	Unlimited
<i>ANY OTHER NZ VOLCANO Volcanic Hazard Zone (NZVxxx)</i>		
0	3	3000 ft above top of vent
1	3	3000 ft above top of vent
2	8	FL 150
3	16	FL 330
4	27	FL 480
5	>50	Unlimited