

# Announcement of Volcanic Activity Level by Japan Meteorological Agency

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Japan Meteorological Agency (JMA) has four Volcano Observation and Information Centers (Sapporo, Sendai, Tokyo and Fukuoka) and is monitoring volcanic activity and releases Volcano Information (Volcanic Alert, Volcanic Advisory and Volcanic Observation Report) from disaster mitigation point of view. As the Volcano information is written by texts, more intelligible expression has been required by disaster prevention organizations and others. The Coordinating Committee for Prediction of Volcanic Eruption suggested JMA numerical expression of volcanic activity and JMA started announcement of Volcanic activity levels on 4 November 2003 for Asamayama, Izu-Oshima, Asosan, Unzendake and Sakurajima volcanoes, at which much observation data have been obtained.

The Volcanic activity level expresses degrees of volcanic activity as following six grades;

Level 0: Dormant stage. No volcanic phenomena as volcanic seismicity or fumarolic activity are observed.

Level 1: Calm stage. Seismic activity or fumarolic activity is observed but no signs of eruption are detected.

Level 2: Active stage. Volcanic abnormal phenomena are detected. We need to watch the state of volcanic activity. JMA issues Volcanic Observation Reports if needed.

Level 3: Small to Middle-scale eruption. Small to middle scale eruption takes place or there is possibility of such eruption. We need to be careful enough to volcanic activity. JMA issues Volcanic Advisory when the level goes up to 3.

Level 4: Middle to Large-scale eruption. Middle to Large-scale eruption takes place or there is possibility of such eruption. We are required careful watch of the volcanic activity. JMA issues Volcanic Alert when the level goes up to 4.

Level 5: Very large-scale eruption. Very large-scale eruption takes place or there is possibility of such eruption. We are required broader-based careful watch of the volcanic activity.

Since the Volcanic activity level is set up so that it may become reference when taking disaster prevention correspondence, the level is defined for each volcano because of differences in eruption style or social factors around the volcano. Therefore, the scales of the eruption generated also on the same Volcanic activity level differ from each other volcano.

In order to avoid frequent taking up and down of the level, after abnormal phenomena (e.g. seismic swarm) cease, the level is held during a fixed period. The length of the period is defined as two weeks or one month in many cases according to the simulation results using the past observation data.

The Volcanic activity level at each volcano is announced in the web site of JMA. If the level is changed, Volcano Information is issued and every Information includes the Volcanic activity level.

JMA is planning to apply the Volcanic activity level also for the other volcanoes.

In this poster, we introduce the summary of the volcanic activity level and judgement of the level at each volcano.