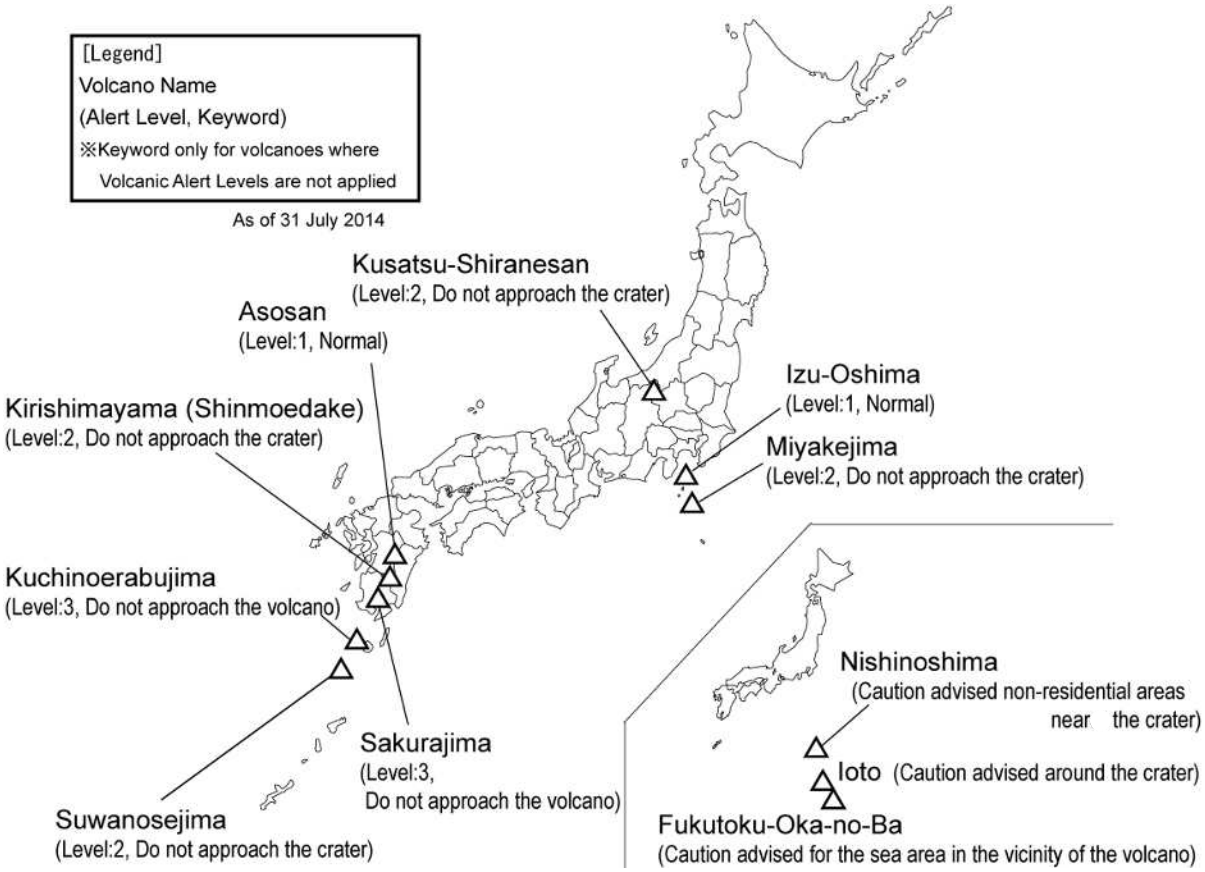
Monthly Volcanic Activity Report (July 2014)

Japan Meteorological Agency



Kusatsu-Shiranesan (Alert Level: 2)

Volcanic seismicity beneath Yugama (a crater lake) and its southern area has been elevated since early March 2014 and has remained at high levels despite some fluctuations. Levels increased on 23 and 24 July in particular, but no volcanic tremors were detected. Data from ground deformation observation have shown a trend of inflation around Yugama. According to the Tokyo Institute of Technology, the composition of volcanic gas in the lake's northern area has also exhibited changes that indicate increased volcanic activity.

Geomagnetic total intensity variations, considered indicative of a temperature rise beneath Yugama, were seen in observation data from May onward but stopped around July.

Miyakejima (Alert Level: 2)

The rate of volcanic gas emission has been on a long-term declining trend and has remained relatively low since February 2013. According to a report from Miyake Village, relatively high concentrations of SO_2 were recorded only occasionally in inhabited areas.

Volcanic seismicity has generally remained at low levels and no volcanic tremors have been observed. According to continuous GNSS* observation data, ground deformation indicating contraction in shallow parts of the

mountain began to diminish gradually in 2000 and stopped around 2013. Long-term extension of the baselines along the longer side of Miyakejima has also been observed since 2006, indicating expansion in deeper parts.

* GNSS (Global Navigation Satellite Systems) is a generic name for satellite positioning systems such as GPS.

Izu-Oshima (Alert Level: 1)

The number of volcanic earthquakes occurring around the northern area of Izu-Oshima increased from 23 to 29 July. Among these, 17 had seismic intensities of 1 or more on the Japan Meteorological Agency (JMA) scale. The largest-magnitude earthquake (M3.7) occurred at 17:05 on 28 July, registering a maximum intensity of 3 in the eastern part of Izu-Oshima.

According to GNSS observation data, although long-term extension of the baseline caused by magma intrusion into deeper parts has been ongoing, it progress has been gradually slowing since 2011. No changes in volcanic activity were seen in other observation data, and there were no eruption precursors.

Nishinoshima (Near-crater Warning)

A report by the Japan Coast Guard (JCG) and other institutions highlighted that the land area was expanding due to the sedimentation of pyroclastic materials and lava flow.

Aerial observation conducted by JCG on 23 July found the new crater generating a continuous white plume. The newly formed land covered around 1,150 m in the east-west direction and 1,050 m in the north-south direction for a total of 1.08 km^2 (0.86 km^2 as of 21 May).

Ioto (Near-crater Warning)

Volcanic seismicity has remained at relatively high levels since March 2014.

The results of continuous GNSS measurement showed that ground deformation entered an almost static state around January 2014. However, deformation began to increase again in late February.

Fukutoku-Oka-no-Ba (Near-sea-area Warning)

Past observation conducted by JCG, the Japan Maritime Self-Defense Force (JMSDF) and JMA has frequently identified discoloration and floating objects in the waters surrounding Fukutoku-Oka-no-Ba in recent years, which are considered to stem from volcanic activity. The latest submarine eruption occurred on 3 February 2010.

Asosan (Alert Level: 1)

A field survey conducted on 17 July revealed that the hot water inside the Nakadake No. 1 crater had disappeared. This was the first absence of hot water there since 25 February 1993.

Volcanic activity in the Nakadake No. 1 crater was slightly high. However, there were no signs of any eruption that may affect the area near the crater.

Kirishimayama (Shinmoedake) (Alert Level: 2)

Ground deformation indicating magma chamber inflation at a depth of several kilometers northwest of Shinmoedake stopped in December 2011 before resuming again around December 2013.

Volcanic seismicity immediately under the Shinmoedake crater has generally remained at low levels.

The number of volcanic earthquakes has risen slightly since February 2014 around Karakunidake (a mountain adjacent to Shinmoedake).

Sakurajima (Alert Level: 3)

Eruption activity at the Showa crater has remained at high levels, with 20 explosions during this period. An eruption occurring at 06:46 on 4 July produced a very small pyroclastic flow that reached around 600 m to the east of Showa crater. The maximum plume height was 2,600 m above the crater rim from an eruption at 21:15 on 5 July.

No eruption was observed at the Minamidake summit crater.

Kuchinoerabujima (Alert Level: 3) ← issued Near-crater Warning and upgraded alert level from 1 to 3 on 3 August, and updated on 7 August

An eruption occurred at Shindake at around 12:24 on 3 August 2014 and gray plume reached higher than 800 m above the crater rim. Caution is required within the area around 2 km from the Shindake crater for scattering ballistic rocks accompanied by the eruption; therefore, Near-crater Warning was issued at 12:50 on the day and the alert level was upgraded from 1 (Normal) to 3 (Do not approach the volcano).

Analyses of volcanic ash revealed a possibility that magma directly affected the eruption on 3 August 2014. If an eruption affected by magma occurs in the future, it may accompany pyroclastic flows; therefore, the Near-crater Warning was updated at 10:00 on 7 August 2014.

Suwanosejima (Alert Level: 2)

At the Otake crater, a small eruption occurred on 17 July.

Eruptions that may affect the area near the crater are expected in the future.