

Volcanic activity of Asama volcano in 2015

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After the end of April, 2015, volcanic earthquakes occurred near Asama volcano have been increased and in June the emission of sulfur dioxide have been increased rapidly. In recognition of the increase in volcanic activity, JMA issued a Near-crater Warning on 11 June and raised the Volcanic Alert Level from 1 to 2. Thereafter, small eruption occurred on 16 and 19 June. In our poster, we report the activity of Asama volcano in 2015 including the activity before and after eruption. Volcanic seismicity became relatively high from the end of April 2015 at Asama volcano. It became the highest in June, and decreased gradually. Amounts of sulfur dioxide emission had increased in June and decreased gradually. Therefore, there would be some correlation between seismic activity and amounts of sulfur dioxide. The glow was observed after 16 June. The thermal activity has remained at high levels.

The volcanic deformation observed by tiltmeters and EDM (Electronic Distance Measurements) after June 2015, by GNSS observation after May 2015. The expansive deformation was confirmed from the data of tiltmeters. We used the model of a point pressure source and tried to estimate the pressure source of this deformation. For data analysis, we use a software package "MaGCAP-V" (MRI, 2008). The best fit model is a point pressure source located in the west of Asama volcano. The deformation detected by GNSS measurements suggests that there is the source which is deeper than the source inferred by the data of tiltmeters because the movement of GNSS has preceded the movement of tiltmeters.

In our poster, we discuss these results in detail and compare with the past activity.

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