

Hypocenters of earthquakes associated with rapid magma intrusion into Sakurajima volcano in August 2015 - Estimation by the amplitude source location method -

*Haruhisa Nakamichi¹, Masato Iguchi¹, Takeshi Tameguri¹

1. Sakurajima Volcano Research Center, Disaster Prevention Research Institute, Kyoto University

We estimated 250 hypocenters of earthquakes that occurred on August 15, 2015 beneath Sakurajima Volcano, southwest Japan by using the amplitudes source location (ASL) method. A plot of residuals for a hypocenter by the ASL method shows that horizontal locations were well constrained compared with the depths. The epicenters of the earthquakes distribute in and around the dike source which is estimated by geodetic measurements (See Figure). However, the depths of the earthquakes are poorly constrained and widely distribute at -1 to 6 km below sea level. The temporal change of the hypocentral distribution is weakly seen and should be carefully examined.

Keywords: Sakurajima volcano, Hypocenter, Earthquake swarm

