

The third round of the repetitive seismic experiment in Sakurajima Volcano.

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The third round of repetitive seismic experiment in Sakurajima Volcano will be presented.

Explosive activity at the 1946 crater has been increasing in the east flank of Sakurajima in southern Kyushu since June 2006. The crater had enhanced its explosive activity before emergence of lava flow on 1946. Since uplift in Aira caldera is approaching up to the same level with that of preceding stage of 1914's eruption (Yamamoto et al, 2010) and the historical description, forthcoming sequence at the 1946 crater is of interest and of importance.

Amount of magma supply to the crater is essential on discussing volcanic eruptions. In order to make direct monitoring of the magma flux, surface geophysical observations are necessary just above the migration route. In Sakurajima, the survey lines have designed after the model which presented by Hidayati et al.(2007). in order to detect structural changes for magma migration.

The repetitive surveys have been carried out since 2009 after the pilot survey on 2008. Two lines, NS and EW were deployed in the eastern foot and the northern flank of the volcano, respectively. The survey lines include 14 shot points and 252 temporary stations, those are the same specification as those of the previous observations. Charge size was 20kg at the shot. Vertical seismometer and the logger LS-8200SD is installed at each station. More than 90% stations are placed at the same place with the previous observations.

Data retrieval was successful and 99.6% of stations were retrieved. Significant change in the later phases were observed for three shots. Coherence and phase rate in the coherent band of 5 - 8Hz also changed against those of the same shot in the previous observation. Contributions of shot effect variation will be discriminated and evolution in structural responses will be discussed.

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