Japan Geoscience Union Japan Geoscience Union Meeting 2014

Oral | Symbol S (Solid Earth Sciences) | S-VC Volcanology

[S-VC55_1PM2]Active Volcanism
Convener:*Yosuke Aoki(Earthquake Research Institute, University of Tokyo), Mie Ichihara(Earthquake Research Institute, University of Tokyo), Chair:Mare Yamamoto(Department of Geophysics, Graduate School of Science, Tohoku University), Takahito Kazama(Graduate School of Science, Kyoto University)
Thu. May 1, 2014 4:15 PM - 5:30 PM  416 (4F)
This session discusses various phenomena associated with active volcanisms including, but not limited to, geophysical and geochemical observations, geology, historical eruptions, and development of modern instruments.

4:15 PM - 4:30 PM
[svc55-p26_pg]Active source seismic experiment in and around Sakurajima volcano in 2013 and comparison with the experiment in 2008
3-min talk in an oral session
*Haruhisa NAKAMICHI1, Tomoki TSUTSUI2, Takeshi TAMEGURI1, Masato IGUCHI1, Hiroshi YAKIWARA3, Takao OHMINATO4, Akira SUGAI5, Hiromitsu OSHIMA6, Satoshi MIURA7, Mare YAMAMOTO1, Masahiro ICHIKI7, Kenji NOGAMI8, Minoru TAKEO4, Mie ICHIHARA4, Jun OIKAWA4, Yoshiko YAMANAKA9, Takahiro OHKURA1, Yuki ABE1, Hiroshi SHIMIZU10, Yusuke YAMASHITA10, Hiroki MIYAMACHI3, Reiji KOBAYASHI3, Daisuke MIKI1, Keigo YAMAMOTO1, Tokumitsu MAEKAWA6, Satoshi HIRAHARA7, Atsushi WATANABE4, Takashi OKUDA9, Shinichiro HORIKAWA9, Kenjiro MATSUHIRO9 (1.Kyoto University, 2.Akita University, 3.Kagoshima University, 4.University of Tokyo, 5.Japan Meteorological Agency, 6.Hokkaido University, 7.Tohoku University, 8.Tokyo Institute of Technology, 9.Nagoya University, 10.Kyushu University)
Keywords:active seismic experiment, temporal change, volcanic activity, eruption, Sakurajima volcano, Aira caldera

We conducted active seismic experiment in and around Sakurajima volcano in December 2013, five years after the similar experiment that was conducted in 2008. We deployed 280 temporary seismic stations, 90% of which were located at the same locations of the experiment in 2008. Six explosive shots with 200 kg or 300 kg charges were detonated in December 5. The 2013 shot locations (S1, S2, S4, S5 and S6) are less than 60 m from the 2008 shot locations except for 1 shot (S3). We successively observed the explosions and volcanic events during nighttime nine hours continuous recording. The continuous records contain not only waveforms excited by the six shots but also by an explosive eruption and volcanic tremor. We evaluate cross-correlations of waveforms at the same station locations that obtained in 2008 and 2013 to detect temporal change of subsurface structure beneath Sakurajima volcano except for S3.Member organizations of the Research Group of the Seismic Dynamic Structure in Sakurajima Volcano: Graduate School of Science, Hokkaido University, Graduate School of Engineering and Resource Science, Akita University, Graduate School of Science, Tohoku University, Earthquake Research Institute, University of Tokyo, Volcanic Fluid Research Center, Tokyo Institute of Technology, Graduate School of Environmental Studies, Nagoya University, Graduate School of Science, Kyoto University, Disaster Prevention Research Institute, Kyoto University, Graduate School of Science and Engineering, Kagoshima University, and Japan Meteorological Agency

©Japan Geoscience Union