

SVC070-P41

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霧島火山西部域における短期間高密度アレイ観測 (序報)

Preliminary report for a dense seismic array observation for a short period in the western area at Kirishima Volcanoes

宮町 宏樹^{1*}, 筒井 智樹², 松島 健³, 山下 裕亮³, 清水 洋³, 為栗 健⁴, 井上 寛之⁴, 及川 純⁵, 八木原 寛¹, 平野 舟一郎¹, 後藤 和彦¹, 下宍 駿¹, 岩本 健吾¹, 飯干 隆介¹

Hiroki Miyamachi^{1*}, Tomoki TSUTSUI², Takeshi MATSUSHIMA³, Yusuke YAMASHITA³, Hiroshi SHIMIZU³, Takeshi TAMEKURI⁴, Hiroyuki INOUE⁴, Jun OIKAWA⁵, Hiroshi YAKIWARA¹, Shuichiro HIRANO¹, Kazuhiko GOTO¹, Suguru SHIMOSAKO¹, Kengo IWAMOTO¹, Ryusuke IHHOSHI¹

¹ 鹿児島大学, ² 秋田大学, ³ 九州大学, ⁴ 京都大学, ⁵ 東京大学

¹Kagoshima University, ²Akita University, ³Kyushu University, ⁴Kyoto University, ⁵University of Tokyo

Dense seismic array observation composed of 97 temporary seismic stations was carried out in the western wide area at Kirishima Volcanoes in a period from March 7 to March 13, 2011. This observation aims to observe the volcanic events such as volcanic earthquakes, tremors and local earthquakes occurred in and around the volcanoes, in order to try to estimate the spatial locations of these events, to try to detect the temporal change of the event locations, and to obtain the basic velocity structure beneath the volcanoes.

The array consisted of three profiles, A-profile, B-profile and C-profile. Each profile has 46, 25 and 26 temporary seismic stations equipped with a 4.5Hz UD-component seismometer and LS-8200SD recorders, respectively. A spatial interval between the stations along the profiles is about 100m. At each station, it was scheduled to record continuously seismic waves every about 3 hours.

During the whole observation period, one eruption occurred on 02h50m, March 8. Because the 10 minutes interruption scheduled between the continuous recording periods unfortunately overlapped the eruption time, we have no seismic data accompanied by the eruption. In addition, the main shock and many big aftershocks of the 2011 Off the Pacific Coast of Tohoku Earthquake occurred on March 11 strongly disturbed weak signals produced in the volcanic area. However, we could successfully obtain other seismic data derived from local earthquakes and volcanic events.

キーワード: アレイ観測, 火山, 霧島

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