Urgent joint seismic observation of the 2016 Kumamoto earthquake - Dense seismic observation -

*Manami Nakamoto[1], Satoshi Matsumoto[1], Takeshi Matsushima[1], Shin'ichi Sakai[2], Yusuke Yamashita[3], Masahiro Miyazaki[3], Yoshihisa Iio[3], Tomomi Okada[4], Hiroaki Takahashi[5], Toshiki Watanabe[6], Kazuhiko Goto[7], Youichi Asano[8], Hiroshi Shimizu[1], Group for urgent joint seismic observation of the 2016 Kumamoto earthquake

1.Institute of Seismology and Volcanology, Kyushu University, 2.Earthquake Research Institute, The University of Tokyo, 3.Disaster Prevention Research Institute, Kyoto University, 4.Research Center for Prediction of Earthquakes and Volcanic Eruptions, Tohoku University, 5.Institute of Seismology and Volcanology, Hokkaido University, 6.Earthquake and Volcano Research Center, Nagoya University, 7.Nansei-Toko Observatory for Earthquakes and Volcanoes, Kagoshima University, 8.National Research Institute for Earth Science and Disaster Resilience

On April 16, 2016, a large earthquake of M 7.3 occurred in Kumamoto prefecture, Kyushu island, southwestern Japan, accompanied by an earthquake of M 6.5 on April 14. Many aftershocks occur and spread across a wide area from Kumamoto to Oita prefecture. After the first large earthquake, temporal seismic stations were immediately installed around the focal area by the group for urgent joint seismic observation of the 2016 Kumamoto earthquake. Until May 1, we installed 37 seismic stations consist of short period seismometers and in 10 stations of them waveform data were telemetered. Moreover, we installed 10 seismometers each area, Yatsushiro city and northeast area of Aso caldera and west of Kumamoto city, corresponding to central part of the Hinagu fault zone, NE-extension of the Fukagawa fault zone and west of the joint area of the two faults, respectively. Continuous wave data will be totally recorded in 67 stations. Kyushu University has also deployed temporal seismic stations in and around Beppu-Shimabara graben before the event on April 14. These data sets help us to determine the hypocenters and analyze focal mechanisms of aftershocks accuracy, and it is expected to reveal characteristics of the 2016 Kumamoto earthquake.

Keywords: the 2016 Kumamoto earthquake, seismic observation