

## Strong ground motions observed under the 2016 mid Tottori prefecture earthquake, Japan

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October 21st., 2016, an earthquake with Mj 6.6 hit mid area of Tottori prefecture, Japan. Earthquake swarms have been activated in the area since mid October in 2015. Large number of seismometers installed by the prefectural government, JMA(Japan Meteorological Agency), NIED(National Institute for Earth Science and Disaster Resilience) and Tottori University, observed strong ground motions in the area. Aftershock observations were also conducted just after the main shock at several temporary sites in the area with housing damages. From prompt analysis of the observed strong motions, it is understood that the ground motions were affected strongly by local site conditions, especially their predominant period caused by sedimentary response. The observed predominant periods at strong motion sites agree well with those estimated by previously conducted microtremor observations in the target area. Characteristics of the observed ground motion and structural damages due to the earthquake are reported considering effect of surface geology in the area.

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