

Fault-zone trapped waves observed for aftershocks of the 2007 Noto Hanto Earthquake

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We deployed 10 seismic stations in and around the source region of the 2007 Noto Hanto Earthquake (M6.9), as a part of the joint-university observation. One of the stations, Nakanoya, is located at the place where right-lateral displacement was observed on the ground. We examined seismograms from 207 aftershocks that occurred from March 29 to April 5. We detected dispersive wave trains from two aftershocks with S-P times of 0.4 and 0.6 s (Fig.1). These are considered to be possible fault-zone trapped waves. We have not detected evidences of clear fault-zone trapped waves for the aftershocks with S-P times greater than 1-2 s. This observation suggests that low-velocity zone exists below the ground deformation at Nakanoya, at least to the distances of 3-5 km.

Fig. 1. An example of seismograms showing possible fault-zone trapped waves. Upper: 00:50:48, March 29, 2007, Lower: 01:12:42, April 5, 2007. UD, NS, and EW components from the top.

