

# Aftershock observation of the Sep. 5, 2004 Tokaido-oki earthquake(Mj=7.4) by using ocean bottom seismograph

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The 2004 Tokaido-oki earthquake(Mj=7.4) happened off the southeastern coast of Kii peninsula at 23:57(local time) on 5 September 2004. It has been interpreted that the earthquake occurred at the interior of the Philippine Sea Plate and the focal mechanism is of a high-angle reverse fault type. Prior to the earthquake, an earthquake(Mj=7.1) occurred at WSW 40km from the epicenter of the mainshock about five hours before, which is regarded as a foreshock. Two largest aftershocks (Mj=6.5) occurred at westward 20km from the main shock in Sep.7 and 8. Hypocenters of these four earthquakes are located inside the Philippine Sea Plate, the source mechanisms have been estimated almost the same.

We have conducted pop-up type ocean bottom seismographs(OBSs) observation around the aftershocks area to investigate the geometry of the faults and to know the time change of the aftershock activities. The first observation was made during the period from Sep. 22, 2004 to Dec. 1, 2004 by installing six OBSs. And then, the second observation was scheduled during the period from Dec. 8, 2004 to Mar. 4, 2005 by nine OBSs. Our main aim is to investigate the time change and extension of the aftershock activities by half a year observation.

Although the aftershock activities have been decreasing gradually, the number of aftershocks determined by land observational system by JMA amounted to almost 1300 during the period of our first observation. We will report the distribution and the time change of aftershock activities in detail and compare the focal mechanisms with the aftershock distribution.

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