

Repeated Observation of Sea-floor Deformation at Kumano Basin, Japan (2)

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We started to monitor ocean bottom crustal deformation at the Suruga bay in 2002 [Tadokoro et al., 2003]. The Kumano basin is located inside of the focal area of Tonankai earthquake. In this paper, we report the results of the repeated observation at the Kumano basin performed three times.

We measured sea-floor units at three times: 1) July 12-16 and 21-22, 2004, 2) November 9-10, 2004, and 3) January 19, 2005. The location error at the 5-day repeated measurement is about 5 cm in the horizontal component. The Offshore Southeast of the Kii Peninsula Earthquakes occurred between the periods 1) and 2), on September 5, 2004. We detected the coseismic crustal deformation of 15 cm to the south and 7 cm. We can detect co-seismic deformation at M7 class earthquakes with our system.