

Earthquake Observation in the Suruga Trough Using Ocean bottom Seismographs-Preliminary Report-

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Tokai Univ. and MRI, are carrying out the single station earthquake observation near the Suruga Trough axial region, east end of a possible near-future Tokai Earthquake, using pop-up type OBSs from October, 2011 to July 2012. After the single-station observation, we are conducting tripartite observation of three OBSs. Deployment and recovering of the OBSs are repeatedly conducted every three months using small work boat with about 20 ton ages of Tokai Univ. In the Suruga Trough axial region, seismicity became active since-years ago; moderated-size earthquakes occurred there (M6.5 in 2009 and M6.1 in 2012).

Although those are believed earthquakes occurred in the subducting Philippine Sea Plate, from land network observation, depth of these moderated-size events may not be necessarily constrained well because of lack of observation within the Suruga Bay.

We report a preliminary result about single-station observation to examine local seismicity in the Suruga Trough axis in terms of frequency and S-P time distribution.

From January 2012 to July 2012, the following results were found.

- (1) During this time, the single OBS observation detected 11,539 events.
- (2) About 5,000 events show S-P time of less than 5sec. About 1,100 events show those of less than one second.
- (3) The earthquakes with S-P time of less than one second are considered to occur in the Philippine Sea plate, not in the land plate.

By the second stage observation from August 2012, we installed OBSs in three sites around Suruga Trough. In our presentation, we would like to mention some preliminary results of the tripartite observation.

Keywords: Earthquake Observation, Suruga Trough, Ocean Bottom Seismograph