# Seismicity off Kii channel observed by pop-up type ocean bottom seismographs

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The Philippine Sea plate is subducting under the south-west Japan from the Nankai trough which runs parallel to south coast of Japan. Along the Nankai trough, great interplate earthquakes have repeatedly occurred at 100-150 years intervals. Recently, the 1944 Tonankai Earthquake and the 1946 Nankai Earthquake occurred at east and west side of Kii peninsula, respectively. Furthermore, Earthquake Research Committee of the Headquarters for Earthquake Research Promotion (2002) estimated that the next Tonankai and Nankai Earthquakes will occur with probability of 50 and 40 percent in next 30 years, respectively.

It is important to know the seismicity around the source regions of these great earthquakes in detail, for understanding source condition. However, it is difficult to know the detailed seismicity around there, because the source regions of these earthquakes extend mainly in sea area, and because the permanent seismic observation net is deployed mainly in land area. To investigate the detailed seismicity off Kii channel, the Osaka District Meteorological Observatory and the Japan Meteorological Agency observed by pop-up type ocean bottom seismograph (OBS) in 2002. We show the result of 2002 observation in this study.

In 2002 observation, five OBSs were deployed at 750 - 4200 meters depth near the Nankai trough off Kii channel during from June 9 to August 22. As a result of the observation, many earthquakes which could not be detected by JMA routine were observed. And almost these earthquakes were distributed in the area of land side from the Nankai trough. This characteristic of spatial distribution off Kii channel is different from the characteristic off Tokai. Off Tokai, seismic activity is extremely low in the area of land side from the Suruga-Nankai trough (e.g. Aoki et al., 2003). In the presentation, we will show the characteristic of each earthquake observed by OBS, and will compare with the JMA catalogue.

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References

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