

Crustal structure across the dislocation area for the Tonankai earthquake, Nankai Trough off Kii Pen., obtained from OBS survey

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To investigate detailed crustal structure across the seismogenic zone off the Kii peninsula where a M8 class earthquakes may recur with the interval of 100 - 200 years, the air gun - ocean bottom seismographic (OBS) refraction/reflection survey was performed from June to July in 1998. This paper mainly presents the latest crustal and uppermost mantle structure across the Nankai Trough off the Kii peninsula using data obtained by OBSs. The crustal model shows the subducting oceanic crust and a well-developed accretionary wedge. Moreover, there is a thick sediments beneath the Kumano Trough with the thickness of 5 km. The island arc upper crust raised suddenly toward the Japan Island Arc, and it may change its shape and velocity laterally.