

## Shape of the Philippine Sea slab around Ise Bay to the Kii Peninsula deduced from precisely determined hypocenters

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We present a model of the shape of the subducted Philippine Sea around Ise Bay to the Kii Peninsula on the basis of hypocenters determined by the double difference method. Further, we report characteristics in the seismic activities in the slab and crust in the region, and propose some ideas about the features. Following are the results so far obtained.

1. We do not think that there is a clear break in the slab around Ise Bay. We consider instead that the slab inclination is very gentle and the depth is shallow there. We suppose that the low seismicity and the existence of the Ise Bay - Tsuruga tectonic belt in the region are related to the feature. They all may be possibly caused by the difference of the direction of the subduction on the eastern and western slabs.

2. A clear change in the subduction angle is observed in the middle of Mie Prefecture: Steeper on the southern side. It is not certain, however, that there is a break in the slab there.

3. A double seismic plane is recognized in the slab on the southern side of the above-mentioned boundary, though seismicity in the lower plane is not high.

4. Seismicity in the slab beneath Wakayama Prefecture is noticeably active compared to that beneath Nara Prefecture. Corresponding to the feature seismic activity in the crust is also high on the southern side. Lineaments are observed in the NNW-SSE direction in the spatial distribution of earthquakes in the slab beneath Wakayama Prefecture.

5. A gap (Ishikawa, 2001) and change in the subduction angle (Cummins et al., 2001) are seen near the west coast of the Kii Peninsula.

6. We think that the non-existence of low frequency earthquakes or seismic tremors beneath the Kii Channel and the eastern part of Shikoku Island is related to the feature that the Philippine Sea plate is subducting to the direction of the equi-depth line of the slab in the region.