

## Heterogeneous structure across the source regions of the 1968 and the 1994 Sanriku-Haruka-Oki earthquakes

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A seismic study using OBS and artificial sources was carried out. The survey line with nearly N-S strike crosses the two major focal zones, the 1968 Tokachi-Oki earthquake and the 1994 Sanriku-Haruka-Oki earthquake. The P-wave velocity structure down to the subducting plate boundary was obtained. The result shows distinct heterogeneities at 40 deg. 10min. N, where is located a the southern boundary for the above two earthquakes. The P-wave velocities for the crust of north of 40 deg. 10min. N are approximately 7 % slower than those for the south. The depths for the island-arc Moho vary from 15 km in the south to 21 km in the north. The plate boundary is found approximately at the depth of 40 km. Three interpretations were proposed.