Study of crustal structure along the NS line cutting the Sanriku-Haruka-Oki Earthquake region, by controlled sources and OBSs.

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In order to evaluate the earthquake potential at the Japan Trench, it is important to understand the distribution of asperities along the subducting plate boundary. The asperity distribution seems to be controlled by fluid flow there and it might be estimated by use of variation of seismic reflectivity at the plate boundary. In this experiment, artificial sources including chemical detonations and 17 ocean bottom seismometers were used. The surveyed line extends from south to north cutting the main moment release region during the Sanriku-Haruka-Oki Earthquake in 1994, whose source mechanism is well determined. The preliminary analysis shows distinct appearance in variation of reflected phases form the lower crust-subducting zone.

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