

## Crustal structure of the off-eastern Aomori region

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The Japan trench subduction zone has regional variation in seismicity. Many large earthquakes occurred in the northern part of Japan Trench. In the off-eastern Aomori region, great earthquakes have occurred every 80-100 years. To examine the influence of plate boundary geometry on the distributions of the rupture zones, we determined detailed P-wave velocity structure to the plate boundary.

A seismic experiment using 42 ocean bottom seismometers (OBSs) and 4500 cu.in. airgun array was conducted to determine a detailed 2D velocity structure in the May 2007 using M/V Kaiko No5. To determine the velocity structure, we used the forward modeling using two-dimensional ray tracing method developed by Zelt and Smith (1992). The depth of plate boundary is about 10km from sea-surface at the northern part of this experiment, and becomes progressively deeper landward. In this presentation we show the detailed velocity structure and plate boundary geometry of the off-eastern Aomori region.

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