

**Seismic structure of the plate boundary zone off-Aomori by airgun-OBS survey**

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In June of 2000, we made a seismic experiment in the forearc region of the northeastern Japan to clarify seismic velocity structure in the aftershock region of the 1968 Tokachi-oki earthquake and the 1994 Sanriku-oki earthquake. At ocean bottom seismograms, we observed refractions from oceanic mantle and wide angle reflections from the subducting Pacific plate. A travel time analysis was applied to the observed data to determine the 2D crustal structure. The NE Japan island arc is composed by five layers; two sedimentary layers, Cretaceous sediments, island arc upper crust, and island arc lower crust. P-wave velocity of uppermost mantle below oceanic crust is about 8.1 km/s. Dip angle of subducting oceanic plate starts to increase at 70 km from the trench.