

Hypocenter Distribution of Plate Boundary Zone off Fukushima , Determined by Ocean Bottom Seismographic Observation

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In the Japan Trench area, the Pacific plate is subducting and there is a high seismicity. We obtained a detailed hypocentral distribution off Fukushima using ocean bottom seismometers. Period of observation was three weeks. Almost all hypocenters are located around the plate

boundary. The hypocenters are distributed in the range of 10 km in depth. The hypocentral depth increases with distance from the trench. Area where distance from the trench is less than 100 km has no

seismicity. In the upper plate, there is a shallow seismic activity. This activity is clearly distinguished from the activity near the plate boundary. Earthquakes which are about 30 km deep from the plate boundary make a plane, and this plane seems to continue to lower plane of double seismic zone beneath the arc.