

## Seismic reflection profiling off-Tottori and Fukui, SW Japan, for seismic and tsunami hazards in the Sea of Japan

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To estimate Tsunami and seismic hazards along the coastal area of Sea of Japan, more detailed survey to identify source faults are needed. A research project funded by MEXT named "the integrated research project on seismic and tsunami hazards around the Sea of Japan" began in FY 2013. To obtain the information of source faults, we performed deep seismic reflection profiling off-Fukui and Tottori area in the southwestern part of Honshu, Japan. Multi-channel seismic reflection data were acquired along four seismic lines in off-Fukui area and five seismic lines off-Tottori in the area within 50 km distance from the shoreline. Total length of seismic line is 190 km in off-Fukui and 280 km in off-Tottori. We used two vessels; a gun-ship with 3020 cu. inch air-gun and a cable-ship with a 2-km-long, streamer cable with 168 channels and 1050 cu. inch air-gun. The survey area consists of stretched continental crust and marked by densely distributed syn-rift normal faults. The thickness of Neogene basin fill is 5 km in off-Tottori and 3 km in off-Fukui. The rift basin fill along the arc-parallel normal faults were strongly deformed in late Miocene by basin inversion. The gently dipping Pliocene sediments cover the folded strata unconformably. Some of the Miocene reverse faults displaced late Pliocene sediments. Latest fault system is high-angle faults, whose displacement is preserved in topographic features. Judging from the pattern of reflection the fault system is strike-slip faults.