

Spatial distribution of active structure and the activity in the offshore extension of the Nagaoka-Heiya-Seien Fault zone.

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We conducted offshore active-fault survey on the offshore extension of the Nagaoka-Heiya-Seien Fault zone. We obtained high-resolution multi-channel seismic reflection data (150 km total length) and 2 sedimentary cores. Existing survey data are also examined in this study.

Results of the seismic reflection survey revealed distinctive subsurface flexure structure along the fault zone. The subsurface structure extends to an uplift bulge (lying NE-SE), and fades out. We recognized surface deformations at several areas, and they possibly indicate the latest event.

We investigated recent sedimentary record based on the newly obtained cores and existing submarine borehole logs. We also reconstructed age-depth curves for the cores based on radiocarbon dating. Sedimentation rates at the footwall(subsiding) side excess those at the hanging-wall(uplifting) side. We calculated averaged vertical deformation rate as 3.8 m/ky based on both the seismic profiles and the age-depth curves.

Keywords: the Nagaoka-Heiya-Seien Fault zone, active structure, high-resolution seismic reflection survey



N13測線と海上ボーリングの対比

