Multi-channel reflection survey off Tokachi by R/V Kairei in 2003

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The R/V kairei conducted Multichannel seismic (MCS) reflection survey in December 2000, in order to clarify detailed velocity structures around the epicenter of 2003 Tokachi-oki earthquake of Mw8. Furthermore this survey additionally aims to find any traces after the event, by comparing the newly acquired MCS data with existing data, which have been obtained in this study area in 2000. The new MCS observation was conducted along the just same track with that of the previous survey.

Also the same data acquisition parameters as the 2000 survey were selected in this survey. Eight 25-liter airguns with shot spacing of 50 m were used as a seismic source and a 156-channel streamer cable with group interval of 25 m was adopted as a receiver. The maximum offset was 4100 m. The streamer cable was towed 20 m below the sea surface to suppress wave-noises by a seasonal wind during the whole survey period.

As a result, a total of 140 km long MCS records were obtained in this survey and are now being processed. We would like to show the resulting velocity information around the epicenter and discuss the difference between the two datasets obtained before and after the 2003 Tokachi-oki earthquake.