

## Development of several instruments for deep seismic surveys in Antarctica; relating SEAL project

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[http://geoipx.nipr.ac.jp/~kanao/seal\\_1](http://geoipx.nipr.ac.jp/~kanao/seal_1)

"Structure and Evolution of the East Antarctic Lithosphere (SEAL)" project have been carrying out in a framework of the Japanese Antarctic Research Expedition. Several instruments for seismic surveys on the Antarctic ice sheet have been developed. A steam water ice/snow drilling machine was improved and testing drillings were conducted on the snow area at Toyama prefecture in April 2001. The scheme of dynamite was determined by dropping several kind of shapes. Expendable ground system segments for detecting seismic signals (GSS; penetrator) have also been developed by conducting several dropping tests on both ground soil area and snow surface in Japan. All these instruments will be used in the coming survey in 2001-2002 austral summer season by JARE-43.