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Room:Convention Hall

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## Submarine landslides of trench landward slopes in the Japan Trench before the earthquake

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In this presentation, a detailed bathymetric map of the Japan Trench landward slope before the NE Japan great earthquake and the submergence record by the submersibles are shown.

The sea geographical features data were obtained by acoustic device SeaBeam2112 equipped with cruises of JAMSTEC research vessels from 1998 to 2007. In the area from the coast of Hachinohe of the latitude 41 degree to the coast of Fukushima of the north latitude 37 degree, the range covers east longitude 145 degree from east longitude 143 degree that places Japan Trench. The scanning zone of the data interval is appropriately set because it becomes oversampling in shallow level and undersampling in deeper level in water depth. In this bathymetric map, the large-scale collapse geographical features scooped out like the circular arc of width tens of the km in each place is admitted. The ruggedness of geographical features with the possibility of the block that slipped and fell by such a collapse of the slope is admitted.

The topography of the seabed announced here will become a critical data set in considering the topography of the seabed and the dive investigation record after the earthquake that will be acquired in the future. However, these landslides-like circular arc geographical features might be formed with the geological time scale.

Keywords: submarine landslide, submersible, bathymetric map, seabeam