

Continental shelf survey of Japan

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Abstract

Japan has a long history of outer ocean bathymetric surveys, which had been conducted by the Japanese Hydrographic Department (JHD), and the first scientific outcome was published as early as in 1924 as "Map of Bathymetry around Japan". Systematic marine geophysical survey started in early 1970s by JHD and marine geological mappings by Geological Survey Japan. Based on the experience and scientific knowledge obtained through such survey/mapping work, JHD started its continental shelf survey in 1983. More than 800 thousand kilometers of track line geophysical data had been acquired, including multi beam bathymetry, geomagnetism and surface gravity, single and multichannel seismic reflection, as well as dredged bottom samples. Reflecting the publication of the Scientific and Technical Guidelines of CLCS, Japanese Government established a comprehensive and intensive survey plan for the purpose of compiling a submission document accordance to the Guideline for the purpose of the submission in the context of article 76 of, and Annex II to the UNCLOS.

Under the Interministerial Conference for the Continental Survey, which was established in 2002, eight ministries cooperatively worked together for surveys and compilation of submission documents, controlled and coordinated by the Cabinet Secretariat. Some 50 billion Yen has been allocated for four-year intensive surveys, and 250 thousand kilometers of track line geophysical survey, 33 thousand kilometers of reflection and refraction survey, and more than 200 core samplings using BMS were successfully completed by the end of this June.

In the course of comprehensive continental shelf survey, scientific findings have been made, such as the development history of Philippine Sea Plate, ultra-mafic rocks dredged at the mega-mullion structure in the Philippine Sea, development system of continental crust out of subduction plate, crustal structure of seamounts, to name a few.

The detail of the surveys and some of the scientific results will be introduced during the presentation.