

Error evaluation for seafloor geodetic observation due to surface current

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Institute of Industrial Science and Hydrographic and Oceanographic Department have been constructing the geodetic observation network on the seafloor around Japan. The observation network, which consists of sixteen seafloor geodetic reference stations, has been built along the ocean trench regions by the end of 2003. Several more stations are planned to be added to cover whole area of the Nanakai trough where the Philippine Sea plate is subducting beneath the Japan main land and huge interplate earthquakes are expected to occur in future.

Results from several observations showed that we could locate the seafloor reference point from data that we got under the condition of slow or stationary current than rapid one. Surface current influences the analysis of locating the positions of the reference points. We will discuss and give the dependency between positioning accuracy and surface current as well as the latest results from our observations in this presentation.