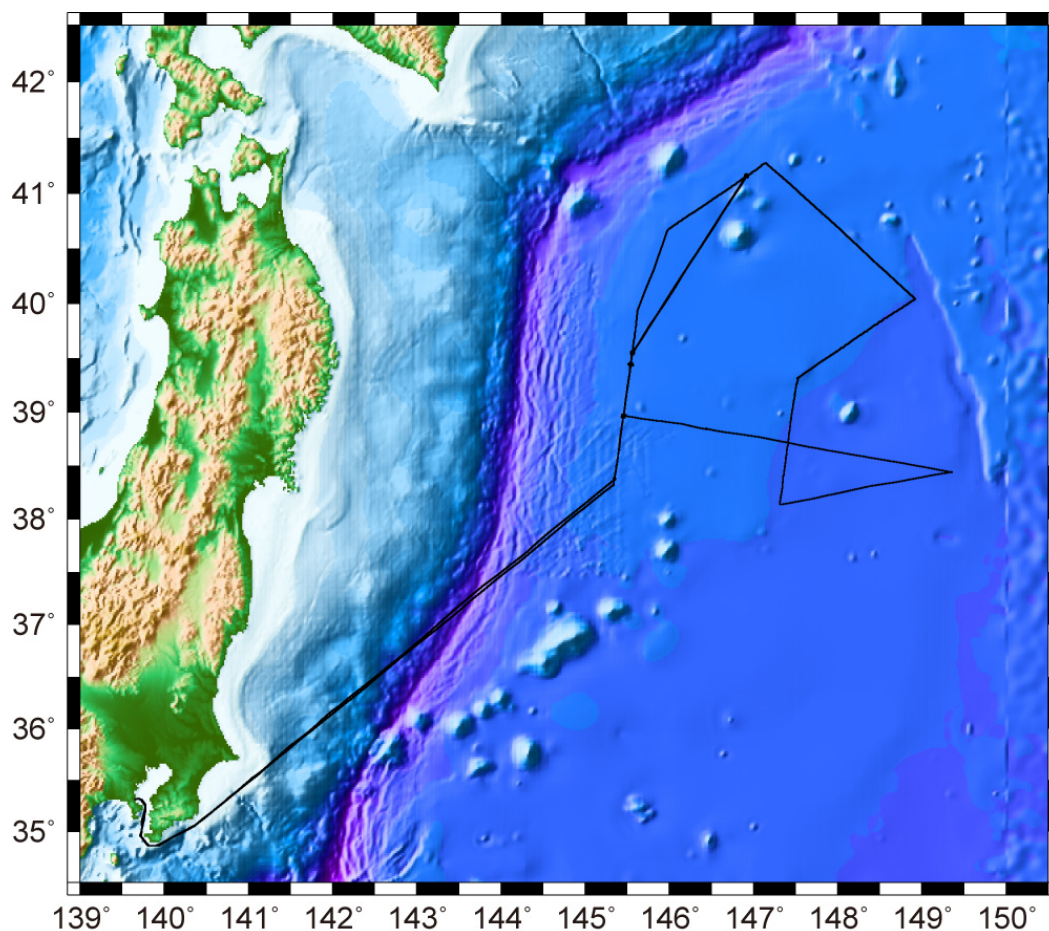


Cruise summary

1. Cruise Information :

- (1) Cruise number, Ship name: KY10-10, R/V Kaiyo
- (2) Title of the cruise: 2010FY “Seismic study in the northwestern Pacific region”
- (3) Chief Scientist [Affiliation]: Takeshi SATO [JAMSTEC]
- (4) Representative of Science Party [Affiliation]:
Yoshiyuki TATSUMI [JAMSTEC]
- (5) Title of proposal:
High-resolution structure study in the northwestern Pacific region
- (6) Cruise period, Port call:
2010/07/16-07/30, JAMSTEC (Yokosuka) to JAMSTEC (Yokosuka)
- (7) Research Area: Northwestern Pacific
- (8) Research Map:



2. Overview of Observation :

(1) Objectives :

In the northwestern Pacific region, the old oceanic plate (Pacific plate) formed in the eastern Pacific ridge has been subducting in the Japan and Kuril trenches. To advance the “Mohole project” being one of an IODP proposal and to understand the structural character of the old oceanic plate, it is important to clarify the crust and mantle structure in the old oceanic plate and the transitional process of the structure in the plate. The objectives of this cruise are to reveal the detailed crust and mantle structure of the old oceanic plate (Pacific plate), around the outer rise, and around volcanoes called as the “Petit Spot” in the northwestern Pacific region.

(2) List of observation instruments :

1) Recovery of ocean bottom seismometers (OBSs)

OBSs deployed by KR10-09 cruise were recovered.

2) Deployment of broad-band ocean bottom seismometers (BBOBSs)

4 BBOBSs were deployed in the northwestern Pacific region.

3) Bathymetry observation

During this cruise, bathymetry data have been recorded continuously by SEABEAM2112.

4) Expendable-Bathy Thermograph (XBT) observation

Expendable-Bathy Thermograph (XBT) observation has been conducted to correct the sonic speed for the bathymetry survey at 3 points.