

Cruise summary

1. Cruise Information :

(1) Cruise number, Ship name: KY08-08, R/V Kaiyo

(2) Title of the cruise: 2008FY “Seismic study at the Izu-Ogasawara region”

(3) Chief Scientist [Affiliation]: Takeshi SATO [JAMSTEC]

(4) Representative of Science Party [Affiliation]:

Yoshiyuki KANEDA [JAMSTEC],

(5) Title of proposal:

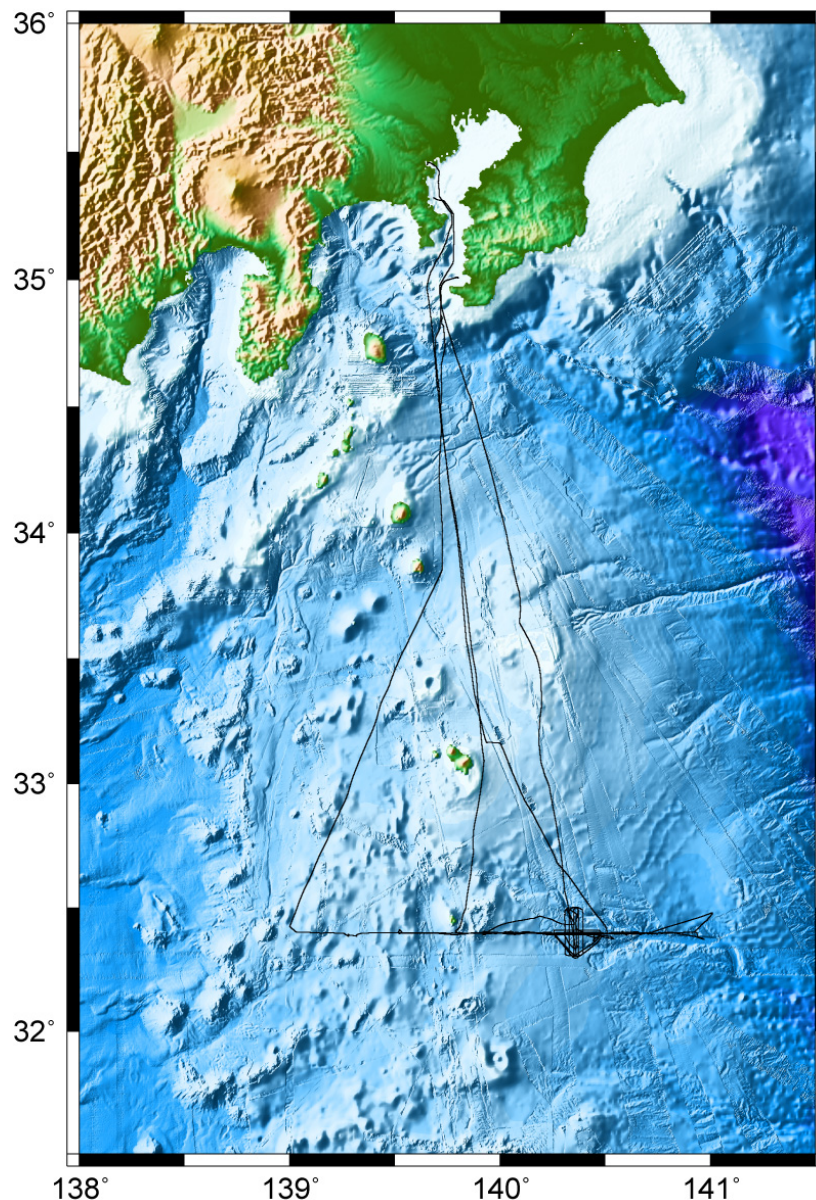
Crustal growth of the Izu-Ogasawara oceanic island arc - Seismic study for IODP
Project IBM-,

(6) Cruise period, Port call:

2008/8/14-8/28, Yamashita Pier in Yokohama port to JAMSTEC (Yokosuka)

(7) Research Area: Izu-Ogasawara

(8) Research Map:



2. Overview of Observation :

(1) Objectives :

IFREE has conducted seismic surveys intensively in the Izu-Ogasawara area to understand crustal evolution of oceanic arcs since 2004. The objectives of this cruise are to reveal the distribution of the arc middle crust in the forearc area and the site characterizations of drill points of Project IBM sites by a refraction/reflection and high resolution reflection seismic surveys conducted in the southeast off Aoga-shima of the Izu-Ogasawara arc.

(2) List of observation instruments :

1) Refraction/Reflection seismic survey

A Refraction/Reflection seismic survey was conducted in the southeast off Aoga-shima (IBM4-EW5 line), the Izu-Ogasawara area, using the airgun array of 12,000 cu. inch and a 16-ch. hydrophone streamer.

2) Recovery of ocean bottom seismometers (OBSs)

We recovered OBSs which were deployed on the IBM4-EW5 line by KR08-09 cruise.

3) High resolution reflection seismic survey

A high-resolution reflection seismic survey was conducted in the southeast off Aoga-shima, the Izu-Ogasawara area using the G-gun array of 600 cu. inch and a 16-ch. hydrophone streamer.

4) Bathymetry observation

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

5) Sea current observation

During this cruise, sea current data have been recorded continuously by Acoustic Doppler Current Profiler (ADCP).

6) Temperature and Conductivity observation for the correction of sonic speed

We have conducted two expendable-Bathy Thermograph (XBT) and expendable Conductivity-Temperature-Depth (XCTD) to correct the sonic speed for the bathymetry survey.