

Cruise summary

1. Cruise Information

- (1) Cruise Number, Ship name : KR14-E02, R/V Kairei
- (2) Title of the Cruise
FY2014 Seismic survey and observations in Japan Trench region
- (3) Chief Scientist [Affiliation] : FUJIE Gou [JAMSTEC]
- (4) Representative of Science Party [Affiliation]
Shuichi Kodaira [JAMSTEC]
- (5) Cruise period, Port call
2014/11/19 – 2014/12/09, Yokosuka-Yokosuka
- (6) Research Area
Japan Trench region
- (7) Research Map

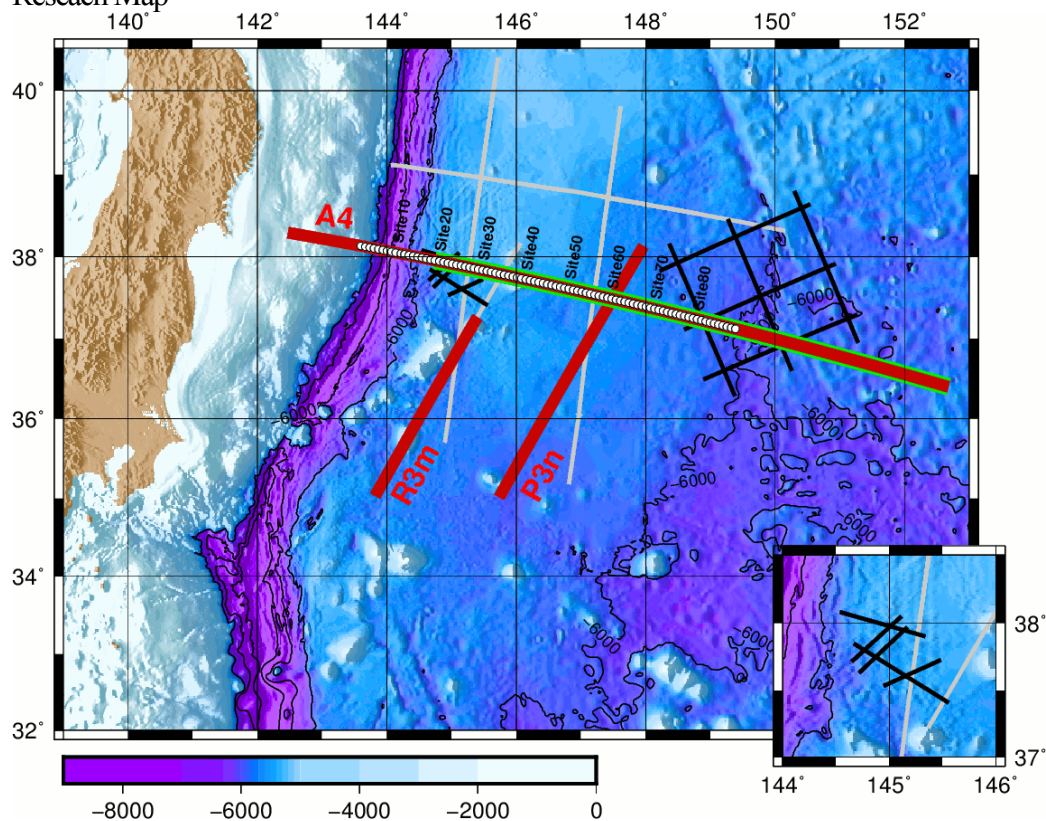


Figure 1. Location map of KR14-E02 cruise. Red line represents planned OBS-refraction and MCS reflection survey lines and small white circles are OBSs for the wide-angle seismic refraction survey.

2. Overview of Observation

(1) Objectives

On 11 March 2011, the great 2011 Tohoku-oki earthquake (Mw 9.0) was occurred in the Japan

Trench region. This was the greatest earthquake that has been observed in Japan, and it caused devastating damages in the eastern Japan. To evaluate the hazard of the large interpolate and outer rise earthquakes next to the rupture zones of the 2011 Tohoku-oki earthquake, we conducted seismic structure survey in the Japan Trench region.

(2) Observations

1) OBS deployment

We deployed 73 OBSs for wide-angle seismic refraction and reflection survey.

2) Airgun shooting.

We shot the airgun array of R/V Kairei along A4.

3) Bathymetry, magnetics and gravity observation.

During the cruise, bathymetry, magnetics and gravity data have been recorded continuously by SEABEAM2112.004, three component magnetometer and gravity meter, respectively.

3. Data

We deployed 73 OBSs for wide-angle seismic structure study. We shot an airgun array of Kairei from the western end of A4 to Site52. All the recovered OBSs recorded wide-angle reflections and refractions clearly. The on-board time-migrated sections along A4 were generally of good quality.