

Cruise summary

1. Cruise Information :

(1) Cruise number, Ship name: KY08-06, R/V Kaiyo

(2) Title of the cruise: 2008FY “Seismicity study off Kii peninsula, Nankai trough”

(3) Chief Scientist [Affiliation]: Koichiro Obana [JAMSTEC]

(4) Representative of Science Party [Affiliation]: Koichiro Obana [JAMSTEC],

(5) Title of proposal:

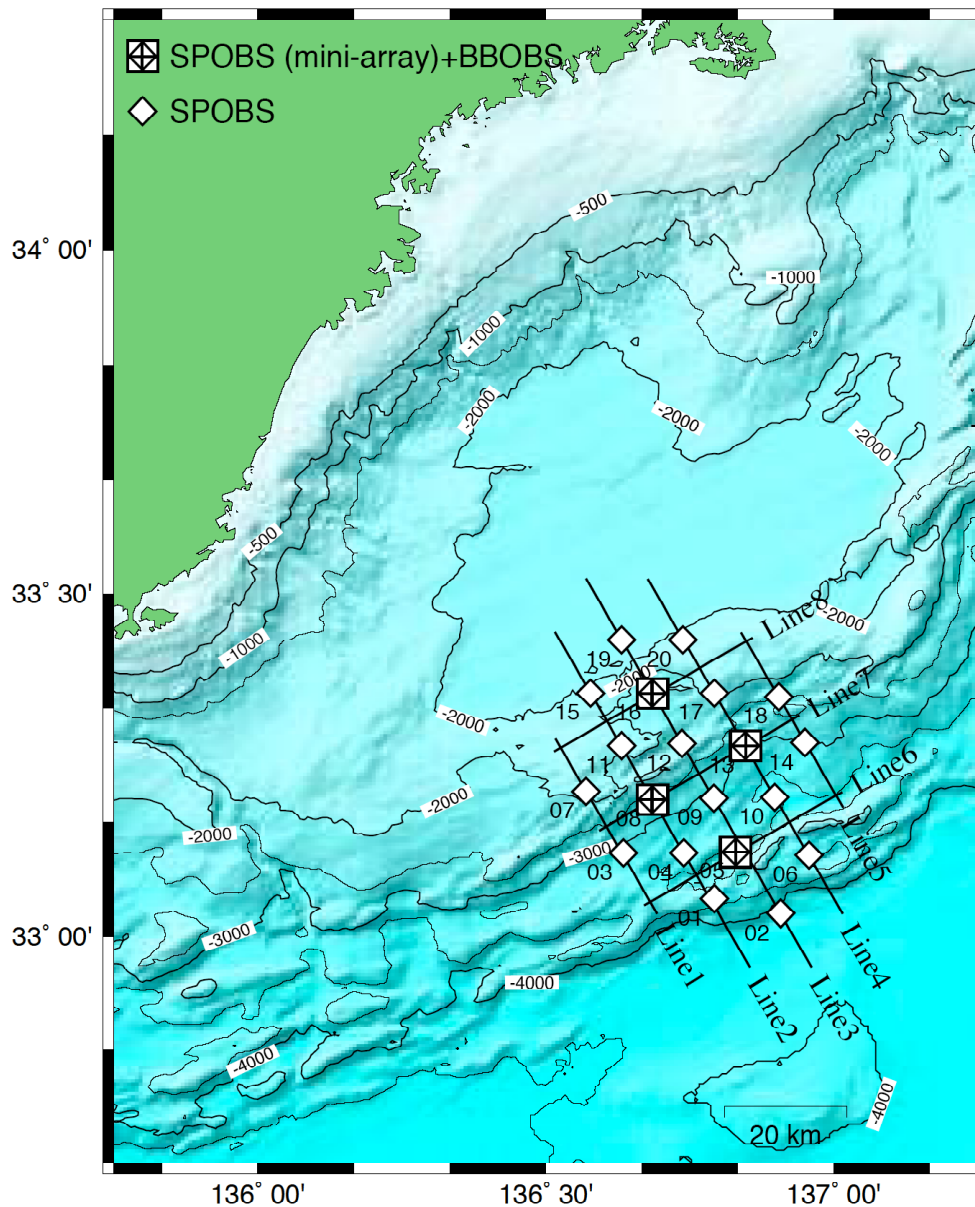
Great earthquakes in the Nankai trough

- a study for mechanisms of low-frequency events in the accretionary prism along the Nankai trough-

(6) Cruise period, Port call: 2008/7/24-7/31, from JAMSTEC (Yokosuka) to Yokosuka-Shinko

(7) Research Area: Off Kii Peninsula, Nankai trough

(8) Research Area Map:



2. Overview of Observation :

(1) Objectives:

This research cruise was conducted as a part of the study of “A research program concerning interaction between the Tokai, Tonankai, and Nankai Earthquakes” funded by the Ministry of Education, Culture, Sports, Science, and Technology of Japan.

The objectives of this cruise to reveal seismic activity including low frequency events in the accretionary prism along the Nankai trough and their mechanisms.

During the cruise, 36 short-period and 4 broad-band ocean bottom seismographs (OBS) were deployed off Kii peninsula in the Nankai trough. After the OBS deployment, single channel seismic surveys were conducted to determine the location of the OBSs precisely and image the shallow structure below the OBSs.

(2) Observations:

1) Deployment of Short-period ocean bottom seismometer (SPOBS)

During the cruise, 36 SPOBS were deployed at 20 sites with a horizontal spacing of about 10 km. At 4 of these sites, 5 SPOBSs were deployed with about 200 m spacing to form mini-arrays.

2) Deployment of Broad-band ocean bottom seismograph (BBOBS)

During the cruise, 4 BBOBS were deployed near the mini-arrays of SPOBS.

3) Single-channel seismic survey (SCS)

SCS survey has been conducted along 8 lines using a GI-gun (250 (G) + 105 (I) cu. in.).

4) Others

During the cruise, bathymetry data have been recorded continuously. Water temperature profile was observed by XBT to correct sound-speed.