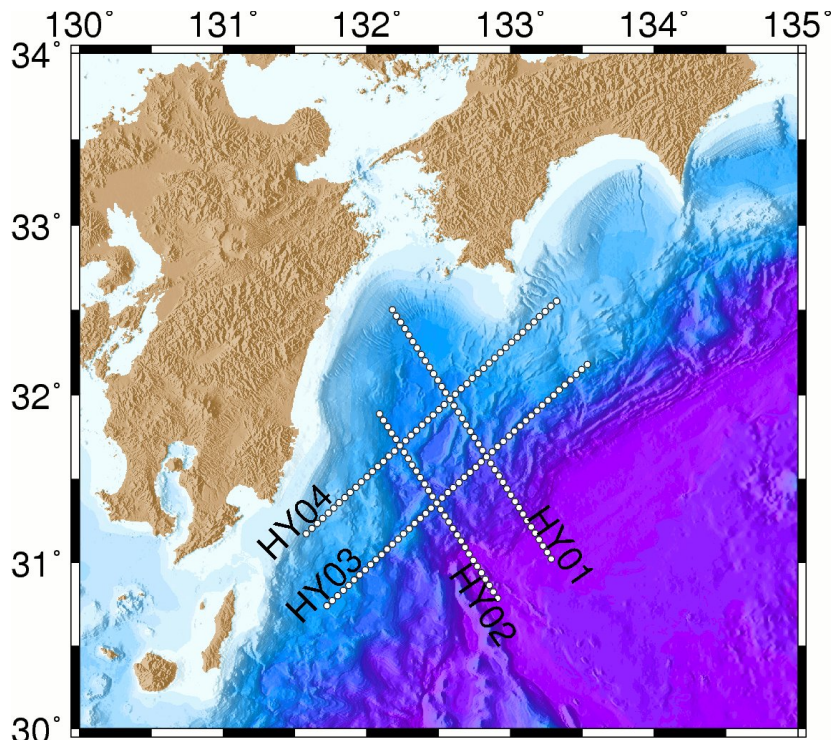


Cruise summary

1. Cruise Information

- (1) Cruise Number, Ship name : KR08-16, R/V Kairei
- (2) Title of the Cruise
FY2008 Seismic structure survey and earthquake observation in Hyuga-nada
- (3) Chief Scientist [Affiliation] : FUJIE Gou [JAMSTEC]
- (4) Representative of Science Party [Affiliation]
Yoshiyuki Kaneda [JAMSTEC]
- (5) Title of proposal
Assessment Study of Co-movement of Tokai, Tonankai and Nankai Earthquake (commissioned by the MEXT)
- (6) Cruise period, Port call
2008/12/06 – 2008/12/26, Yokosuka-Yokosuka
- (7) Research Area
Hyuga-nada
- (8) Research Map



White circles represent OBSs.

2. Overview of Observation

(1) Objectives

In the Nankai Trough seismic subduction zone, a number of great earthquakes ($M > 8$), such as 1944 Tonankai and 1946 Nankai earthquakes, have been repeatedly occurred.

Notable features in this region are the segmentation of the rupture zones and synchronization of these segments. To understand the structure factors controlling the segmentation and the synchronization of rupture zones, it is necessary to reveal the detailed structure variations and seismic activities in this subduction zone. The objectives of this cruise are, 1) to construct detailed crustal structure in the Hyuga-nada region, and 2) to observe seismicity, particularly the activity of the low frequency tremors, in this region.

(2) Observations

1) OBS deployment

All the 160 OBSs were successfully deployed at planned points.

2) Airgun shooting for OBSs

We shot the airgun array for OBSs on all the 4 lines at a 200m interval.

3) MCS survey using airgun and multichannel hydrophone streamer cable

We planned to conduct MCS survey on HY02 and HY03. However, we could not because of heavy weather and mechanical troubles of airguns.

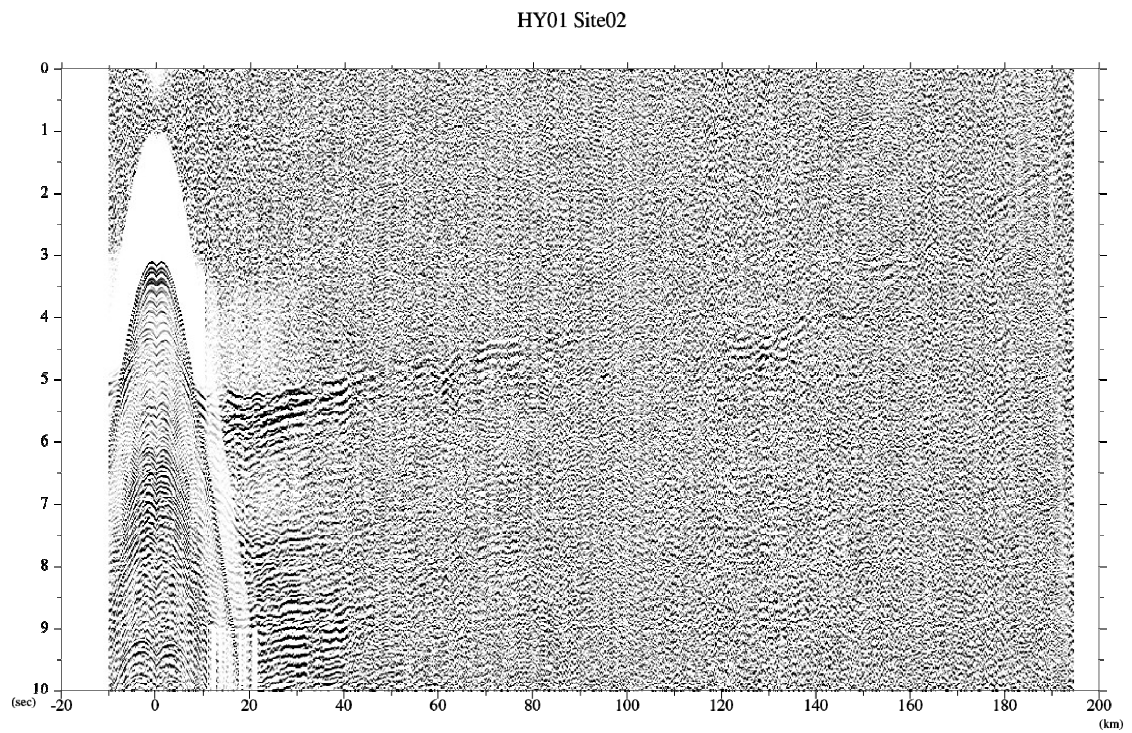
4) Bathymetry, magnetics and gravity observation

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

5) OBS recovery

We recovered 28 OBSs on the southern part of HY01 and HY02.

6) Results



A record section observed at Site02 on HY01. We could observe refractions upto about 200km offset.