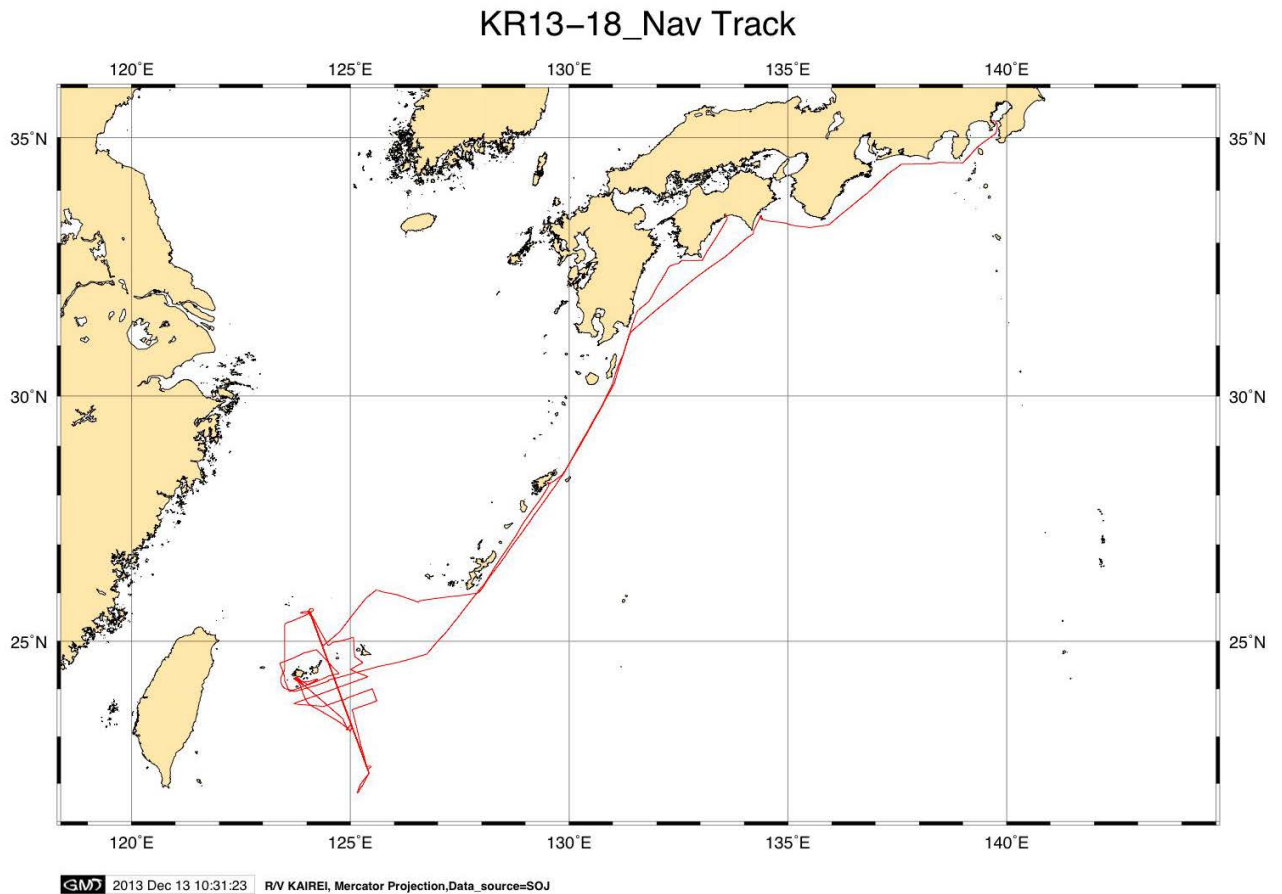


Cruise Summary

1. Cruise Information :

- (1) Cruise number, Ship name: KR13-18, R/V Kairei
- (2) Title of the cruise: 2013FY “Seismic study in Nansei-Shoto Region”
- (3) Title of proposal: Seismic Observation about Earthquake and Tsunami in the Nankai Trough, Nansei-Shoto and Off Kanto
- (4) Cruise period, Port call:
2013/11/17-12/14, Kochi to Yokosuka
- (5) Research Area: Nansei-Shoto Region
- (6) Research Map:



2. Researchers

- (1) Chief Scientist [Affiliation]: Yuka KAIHO [JAMSTEC]
- (2) Representative of Science Party [Affiliation]:
Yoshiyuki KANEDA [JAMSTEC]
- (3) Science party list:
Shuichi KODAIRA [JAMSTEC]
Koichiro OBANA [JAMSTEC]
Ayako NAKANISHI [JAMSTEC]

Narumi TAKAHASHI [JAMSTEC]
Seiichi MIURA [JAMSTEC]
Gou FUJIE [JAMSTEC]
Tsutomu TAKAHASHI [JAMSTEC]
Yojiro YAMAMOTO [JAMSTEC]
Takeshi SATO [JAMSTEC]
Mikiya YAMASHITA [JAMSTEC]
Yasuyuki NAKAMURA [JAMSTEC]
Tetuo NO [JAMSTEC]
Yuka KAIHO [JAMSTEC]
Yasushi ISHIHARA [JAMSTEC]
Takashi TONEGAWA [JAMSTEC]
Hiroko Sugioka [JAMSTEC]
Aki ITO [JAMSTEC]

3. Overview of Observation :

(1) Objectives :

The objectives of this cruise are to reveal the crustal structure and earthquake observation in Nansei-Shoto Region as a part of the study of “Project for wide-area earthquake research of the Nankai Trough” funded by the Ministry of Education, Culture, Sports, Science, and Technology of Japan.

In the Nansei-Shoto trench subduction zone, a number of tracks about large earthquakes and Tunamis are indicated. Because of the lack of historical documentation, to clarify the earthquakes repetition, scale and locations are required subjects. The elucidation of earthquake structure and seismic activity is an important key which catches the nature of earthquake and Tunamis in the Nansei-Shoto subduction zone.

(2) List of observations :

1) Deployment and retrieve of ocean bottom seismometers (OBSs)

60 OBSs (55 normal type OBSs and 5 Deep sea OBSs) were deployed along YA05 line. All OBS were recovered after controlled source survey.

30 long term OBSs were deployed for earthquake observation.

2) Airgun shooting

Along YA05, refraction survey using a tuned air-gun array of 7,800 cubic inch was conducted. Shot spacing is 200m for the OBS survey.

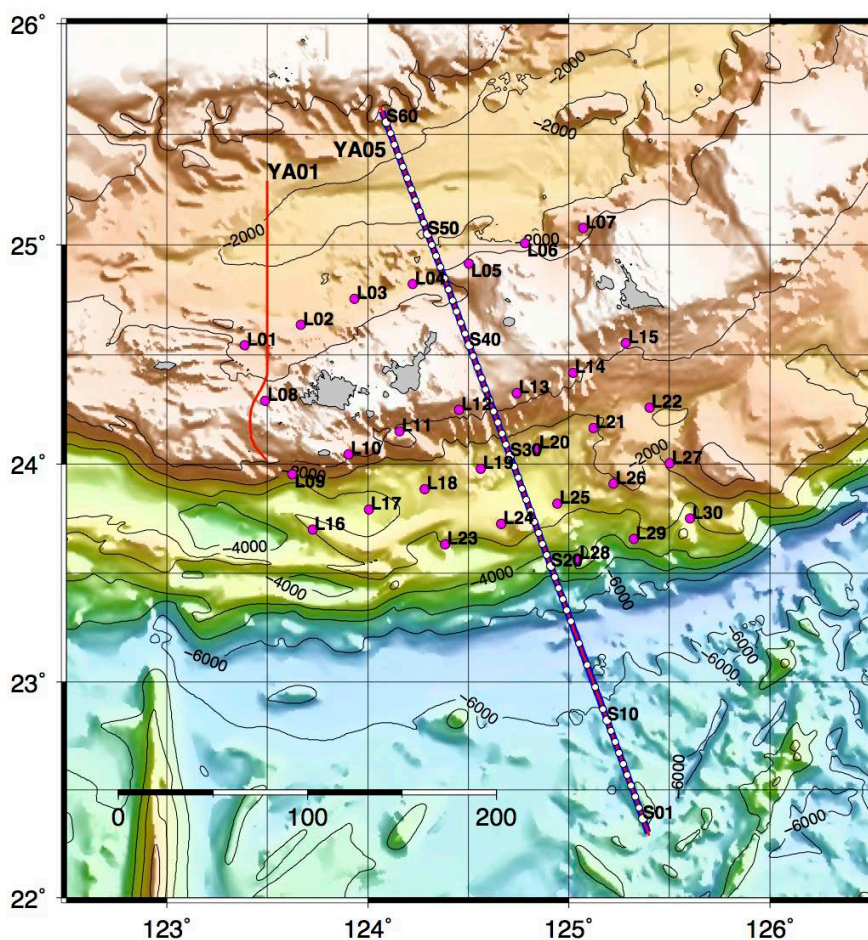
3) MCS survey

Along 2 lines (YA05 and YA01), the MCS reflection survey using a tuned air-gun array of 7,800 cubic inch and a 444 channel hydrophone streamer with a 12.5 m group interval was conducted. Shot spacing is 50m for the MCS survey.

(3) Cruise log:

| Date | | Remarks |
|------------------|------------|--|
| 2013/11/17-11/19 | Sun.-Tue. | Departure from KOCHI/Transit to survey area |
| 2013/11/20-11/23 | Wed.- Sat. | Deployment of OBSs |
| 2013/11/24-11/25 | Sun.-Mon. | Airgun shooting along YA05 |
| 2013/11/26 | Tue. | Standby due to weather condition |
| 2013/11/27 | Wed. | Deployment of OBSs/ Transit due to weather condition |
| 2013/11/28-11/29 | Thu.- Fri. | Standby due to weather condition |
| 2013/11/30-12/1 | Sat.- Sun. | Transit/ Airgun shooting along YA05/OBS recovery |
| 2013/12/2-12/4 | Mon.-Wed. | OBS recovery along YA05 |
| 2013/12/5-12/8 | Thu.- Sun. | MCS survey along YA05 and YA01 |
| 2013/12/9-12/13 | Mon.- Fri. | Transit/Standby due to weather condition |
| 2013/12/14 | Sat. | Arrival at YUKOSUKA (Kanagawa) |

(4) OBS and MCS survey map



White circles show the OBS positions and magenta circles are LOBS sites. Blue thick line shoes a refraction survey. Magenta thin lines are MCS survey lines.