



## **R/V Kaiyo Cruise Report**

**KY14-03**

Seismic study in the Southwest Islands Region

February 17, 2014 – February 27, 2014

Japan Agency for Marine-Earth Science and Technology

(JAMSTEC)

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## 1. Cruise Information

- (1) **Cruise number, Ship name:** KY14-03, R/V Kaiyo
- (2) **Title of the cruise:** 2013FY “Seismic study in the Southwest Islands Region”
- (3) **Title of proposal:** Seismic Observation about Earthquake and Tsunami in the Nankai Trough, the Southwest Islands and Off Kanto
- (4) **Cruise period and Ports of call:** 2014/02/17-02/27, Naha - Yokosuka
- (5) **Research Area:** The Southwest Islands Region
- (6) **Cruise Track:**

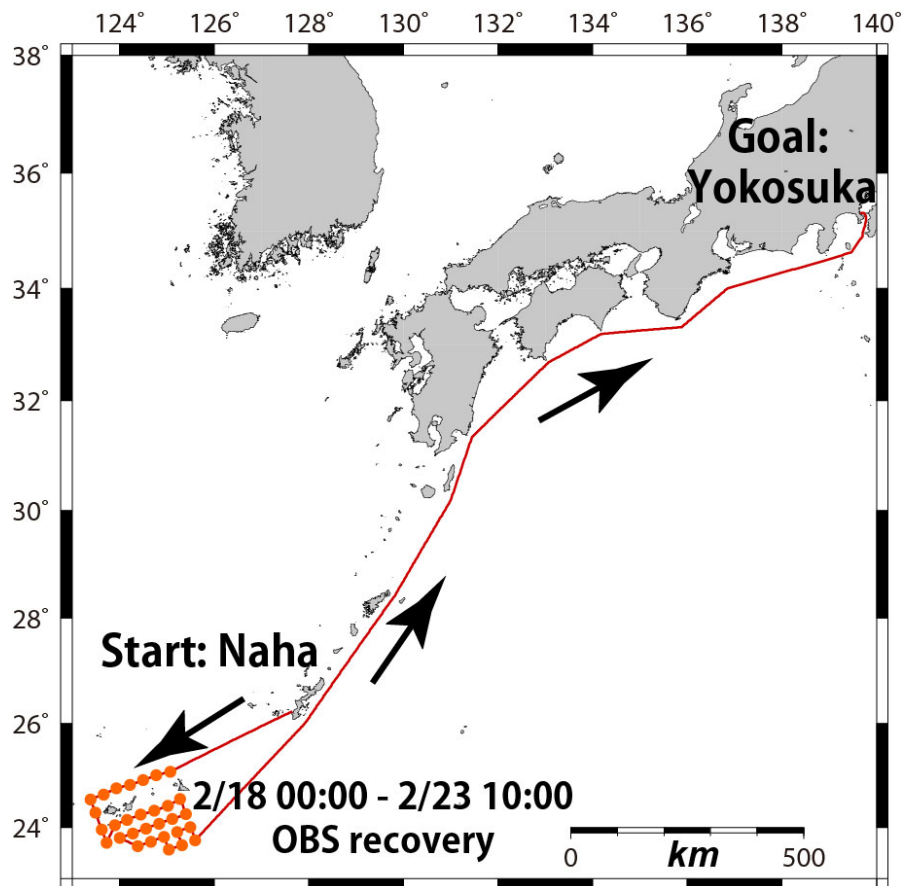


Figure: Cruise track and OBS locations.

## 2. Researchers

- (1) **Chief Scientist:** Yojiro YAMAMOTO [JAMSTEC]
- (2) **Representative of Science Party:** Yoshiyuki KANEDA [JAMSTEC]
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### 3. Observation

#### (1) Objectives

The objectives of this cruise are to reveal the crustal structure and earthquake observation in the Southwest Islands 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 Southwest Islands subduction zone, a number of tracks of past large earthquakes and Tsunamis were observed. However, because of the lack of historical documentation, there is little information about the location and scale of these earthquakes. In addition, hypocenter location obtained by Japan Meteorological Agency in this region contains large error because of sparse seismic station distribution. Ocean bottom seismographic observation data obtained by this cruise will provide us more detail information about the geometry of the plate boundary, earthquake location and structural heterogeneities in this region.

#### (2) List of observations

The location estimation and recovery of the 30 long term OBSs deployed during the KR13-18 cruise (2013/11/17-12/14).

#### (3) Cruise log

Date		Remarks
2014/02/17	Mon.	Departure from Naha & Transit to survey area
2014/02/18-19	Tue.- Wed.	Recovery of OBSs (L01-11, L16).
2014/02/20	Thu.	Standby due to weather condition
2014/02/21-23	Fri. - Sum.	Recovery of OBSs (L12-L15, L17-L30).
2014/02/24-26	Mon.- Wed.	Transit.
2014/02/27	Thu.	Arrival at Yokosuka.

**(4) OBS information**

Site	OBS position (Relocated in this cruise)				
	Latitude(N)		Longitude(E)		Depth(m)
L01	24	32.6762	123	23.1661	1166
L02	24	38.2332	123	39.9266	1799
L03	24	45.3073	123	56.0303	1887
L04	24	49.3372	124	13.5805	1940
L05	24	55.0227	124	30.2367	683
L06	25	00.5238	124	46.9849	1990
L07	25	04.6238	125	04.2778	1187
L08	24	17.4854	123	29.3376	463
L09	23	57.1921	123	37.4423	2346
L10	24	02.7158	123	54.1214	647
L11	24	08.9923	124	09.4075	857
L12	24	14.9772	124	27.1761	754
L13	24	19.5047	124	44.3802	697
L14	24	25.0963	125	01.1417	850
L15	24	33.1937	125	16.9972	965
L16	23	42.0819	123	43.4779	3503
L17	23	47.5900	124	00.1186	3219
L18	23	53.1286	124	17.0252	2809
L19	23	58.7550	124	33.7272	2530
L20	24	04.3377	124	50.4721	2604
L21	24	09.9217	125	07.1951	2169
L22	24	15.4970	125	23.9818	1942
L23	23	37.9039	124	22.9990	3475
L24	23	43.5917	124	39.7252	2756
L25	23	49.1415	124	56.4972	3100
L26	23	54.7279	125	13.2399	2327
L27	24	00.3341	125	30.0751	1754
L28	23	33.8595	125	02.5983	4245
L29	23	39.5040	125	19.4774	3355
L30	23	45.2311	125	36.1102	2973

**(5) Location map of the OBS stations**

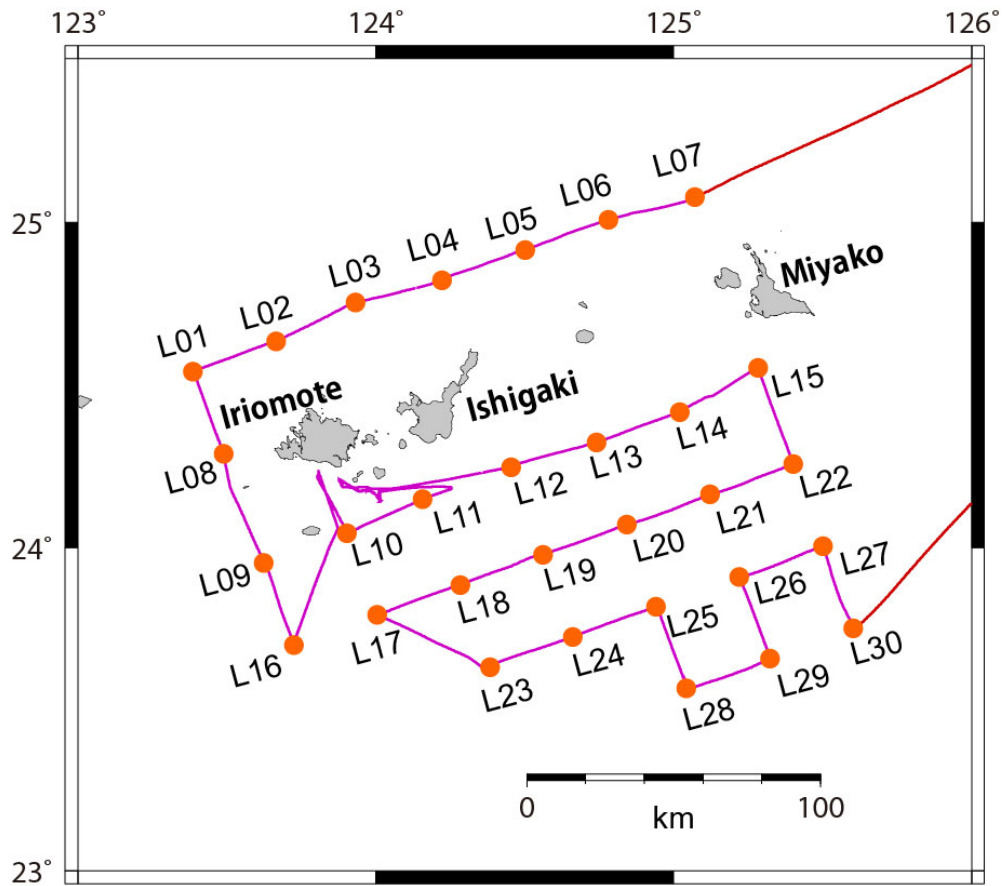


Figure: OBS positions and cruise track in the study area.

**4. Notice on using**

This cruise report is a preliminary documentation as of the end of the cruise.

This report may not be corrected even if changes on contents (i.e. taxonomic classifications) may be found after its publication. This report may also be changed without notice. Data on this cruise report may be raw or unprocessed. If you are going to use or refer to the data written on this report, please ask the Chief Scientist for latest information. Users of data or results on this cruise report are requested to submit their results to the Data Management Group of JAMSTEC.