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R/V Kaiyo Cruise Report

KY08-11

Seismicity study off Kii peninsula, Nankai trough

October 8 − 13, 2008

Japan Agency for Marine-Earth Science and Technology

(JAMSTEC)

Contents:

1. Cruise Information：

(1) Cruise number, Ship name: KY08-11, 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:

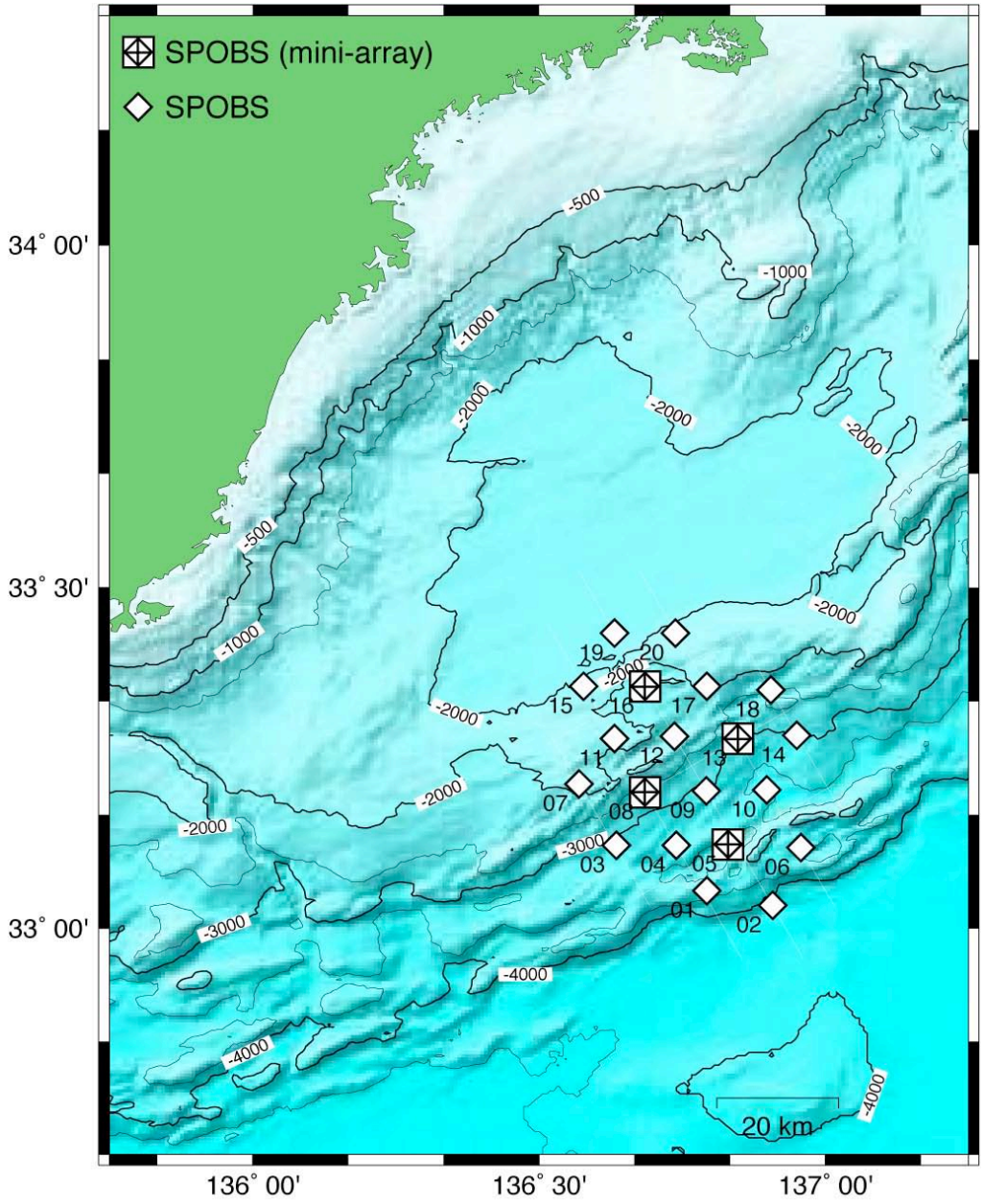
Research for Interaction between the Tokai, Tonankai and Nankai Earthquakes

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

(6) Cruise period, Port call: 2008/10/8-10/13, from Yokosuka-Shinko to JAMSTEC (Yokosuka)

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

(8) Research Area Map:



2. Researchers

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

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

(3) Science party list:

Aki Ito [JAMSTEC] **(on board)**

Akiko To [JAMSTEC] **(on board)**

Hiroko Sugioka [JAMSTEC]

Shuichi Kodaira [JAMSTEC]

Daisuke Suetsugu [JAMSTEC]

Masataka Kinoshita [JAMSTEC]

Yasushi Ishihara [JAMSTEC]

Eiichiro Araki [JAMSTEC]

Yoshiyuki KANEDA [JAMSTEC],

Yoshio FUKAO [JAMSTEC],

3. Overview of Observation:

(1) Objectives:

This research cruise was conducted as a part of the study of “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 are to reveal seismic activity including low frequency events in the accretionary prism along the Nankai trough and their mechanisms.

During the cruise of KY08-11, short-period ocean bottom seismographs, which were deployed off Kii peninsula in the Nankai trough by the cruise of KY08-06 in July 2008, have been recovered.

(2) List of observation instruments:

1) Short-period ocean bottom seismometer (SPOBS)

During the cruse, out of 36 SPOBSs deployed by the cruise of KY08-06 in July 2008, 34 SPOBSs have been retrieved. Two SPOBSs at site 5_1 and site 14 have not been recovered.

2) Others

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

(3) Cruise log:

Date		Remarks
2008/10/8	Wed	Departure from Yokosuka-Shinko. Transit to survey area
2008/10/9	Thu	OBS recovery
2008/10/10	Fri	OBS recovery
2008/10/11	Sat	OBS recovery
2008/10/12	Sun	Transit to JAMSTEC (Yokosuka)
2008/10/13	Mon	Arrive at JAMSTEC (Yokosuka)

(4) Research Information:

1) OBS Recovery

During the cruse, out of 36 SPOBSs deployed by the cruise of KY08-06 in July 2008, 34 SPOBSs have been retrieved. Two SPOBSs at site 5_1 and site 14 have not been recovered. Response from transponder of these two OBSs could not be recognized.

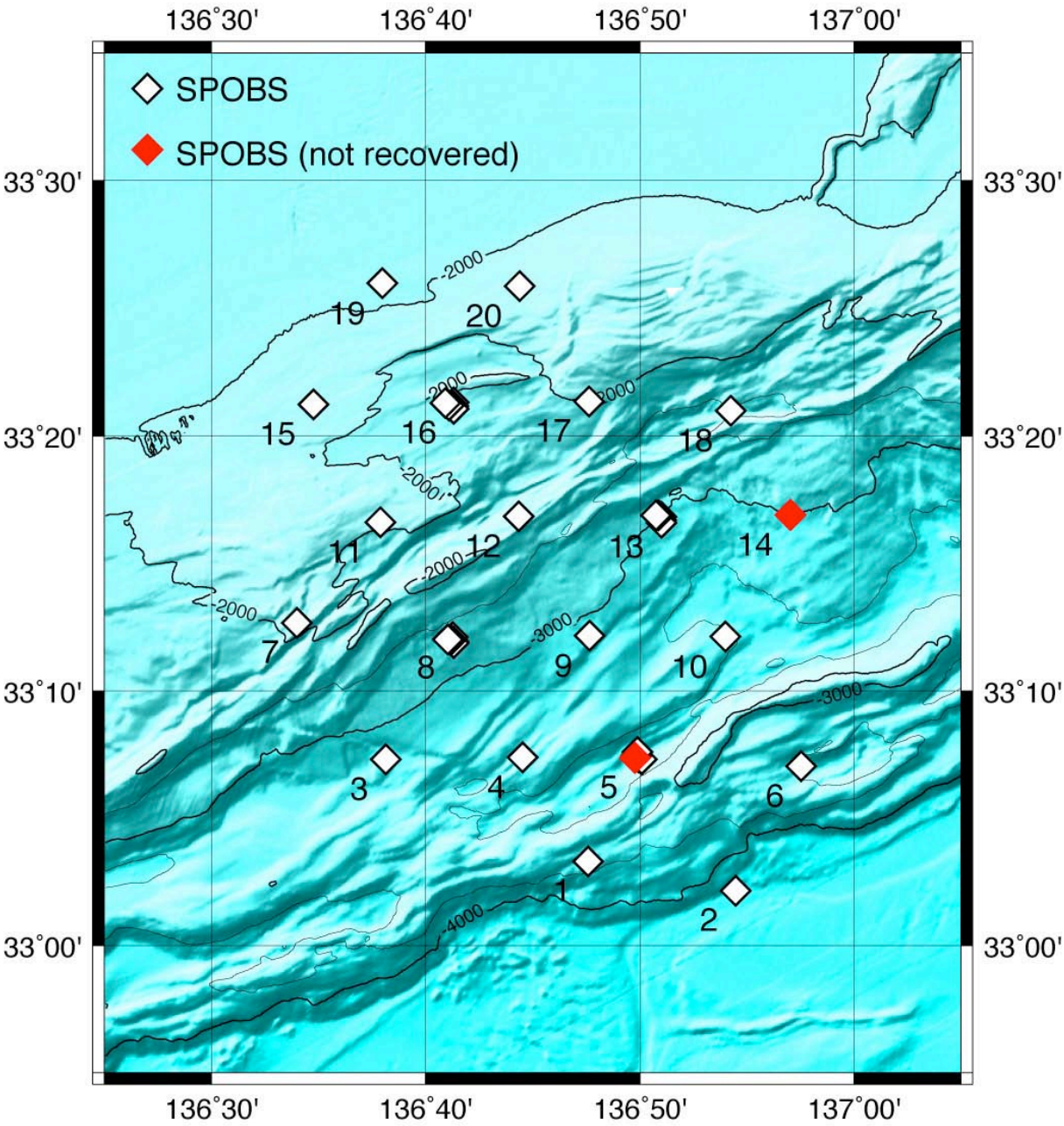


Fig.1 Map of the SPOBSs. Red diamonds are unrecovered OBSs.

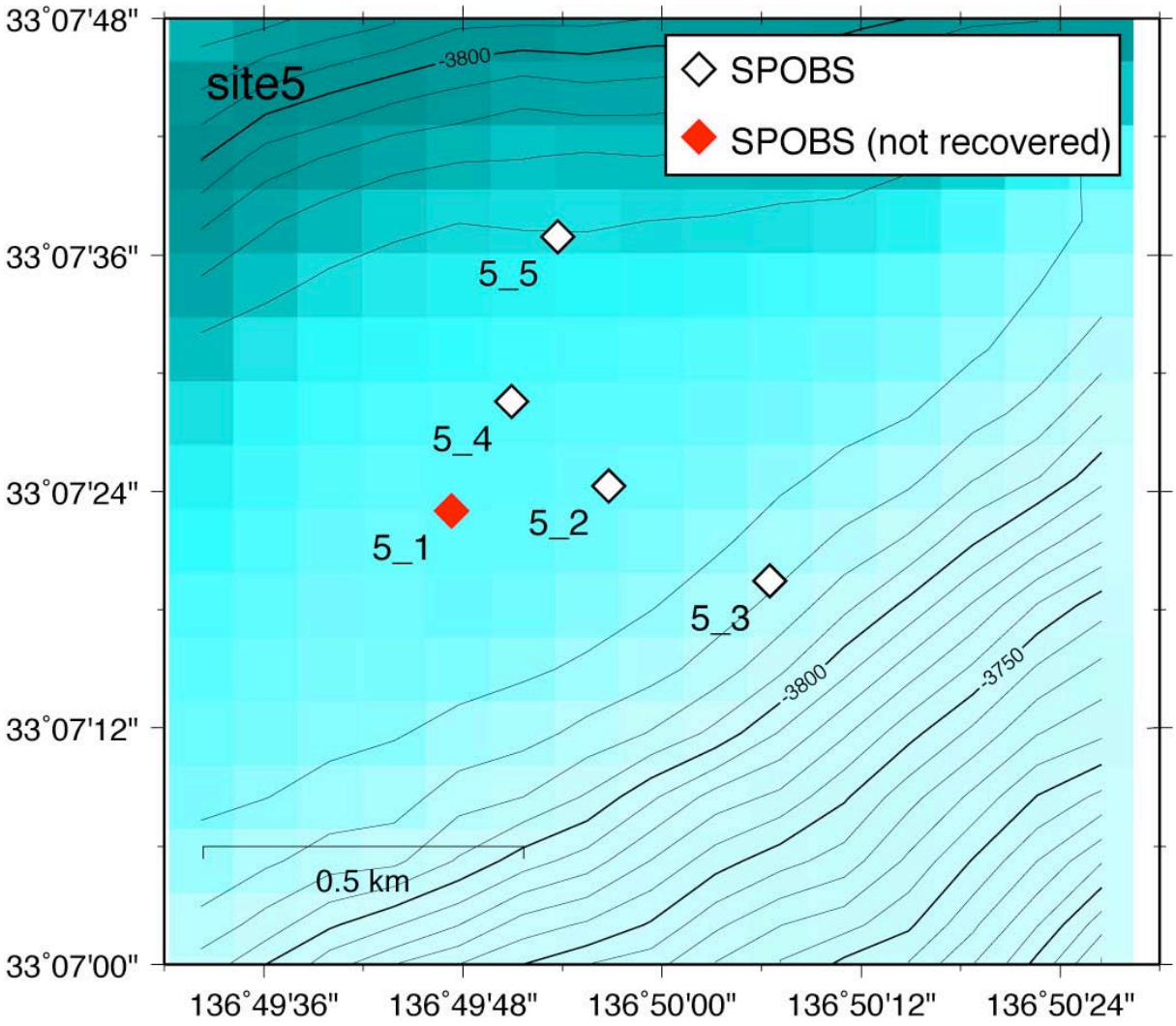


Fig.2 Map of the OBSs at site 5. OBS at site 5_1 was not recovered.

Table 1. OBS positions.

Site	Deployment (UTC) KY08-06	Recovery (UTC) KY08-11	Lat. (N)	Lon. (E)	Depth (m)
1	2008/07/25 00:49:00	2008/10/10 05:20:00	33.05520	136.79325	3418.1
2	2008/07/24 22:46:00	2008/10/10 17:14:00	33.03599	136.90782	4376.8
3	2008/07/25 20:56:00	2008/10/09 07:22:00	33.12208	136.63575	3249.9
4	2008/07/25 19:08:00	2008/10/10 03:43:00	33.12324	136.74229	3311.1
5_1	2008/07/25 02:16:00	(not recovered)	33.12306	136.82981	3838.1
5_2	2008/07/25 03:12:00	2008/10/10 07:25:00	33.12341	136.83244	3838.5
5_3	2008/07/25 03:22:00	2008/10/10 11:23:00	33.12207	136.83514	3829.9
5_4	2008/07/25 04:29:00	2008/10/10 09:56:00	33.12460	136.83082	3834.6
5_5	2008/07/25 04:35:00	2008/10/10 08:35:00	33.12692	136.83159	3832.9
6	2008/07/24 21:03:00	2008/10/10 18:58:00	33.11770	136.95909	3521.7
7	2008/07/25 22:48:00	2008/10/09 05:37:00	33.21122	136.56631	1919.5
8_1	2008/07/25 23:46:00	2008/10/09 10:58:00	33.20191	136.68766	2608.4
8_2	2008/07/26 00:26:00	2008/10/09 11:55:00	33.19923	136.68833	2627.4
8_3	2008/07/26 00:31:00	2008/10/10 12:56:00	33.19804	136.68841	2639.9
8_4	2008/07/26 01:13:00	2008/10/09 10:05:00	33.19998	136.68640	2712.9
8_5	2008/07/26 01:24:00	2008/10/09 09:13:00	33.20031	136.68404	2639.1
9	2008/07/24 17:40:00	2008/10/10 01:58:00	33.20286	136.79433	3058.3
10	2008/07/25 09:08:00	2008/10/10 20:52:00	33.20227	136.89986	3466.1
11	2008/07/26 04:17:00	2008/10/09 04:17:00	33.27705	136.63167	1986.6
12	2008/07/26 05:19:00	2008/10/09 14:33:00	33.28087	136.73909	2266.1
13_1	2008/07/25 13:07:00	2008/10/09 20:04:00	33.28061	136.85023	2983.7
13_2	2008/07/25 13:52:00	2008/10/09 21:02:00	33.27837	136.84978	3001.3
13_3	2008/07/25 13:58:00	2008/10/09 22:04:00	33.27691	136.85025	3006.8
13_4	2008/07/25 14:41:00	2008/10/09 23:12:00	33.28160	136.84781	2980.6
13_5	2008/07/25 14:46:00	2008/10/10 00:18:00	33.28142	136.84620	2980.7
14	2008/07/25 10:36:00	(not recovered)	33.28177	136.95069	3003.3
15	2008/07/26 12:44:00	2008/10/08 22:08:00	33.35408	136.57924	1974.1
16_1	2008/07/26 08:49:00	2008/10/08 23:56:00	33.35531	136.68868	2030.7
16_2	2008/07/26 09:28:00	2008/10/09 00:36:00	33.35318	136.68820	2044.6
16_3	2008/07/26 09:41:00	2008/10/09 01:22:00	33.35116	136.68846	2036.1
16_4	2008/07/26 10:12:00	2008/10/09 02:08:00	33.35332	136.68470	2028.9
16_5	2008/07/26 10:17:00	2008/10/09 02:54:00	33.35504	136.68199	2039.8
17	2008/07/26 06:26:00	2008/10/09 16:00:00	33.35583	136.79383	2020.2

18	2008/07/25 11:54:00	2008/10/09 17:32:00	33.34995	136.90406	2538.0
19	2008/07/26 13:51:00	2008/10/08 20:43:00	33.43305	136.63311	2019.9
20	2008/07/26 07:39:00	2008/10/08 18:56:00	33.43139	136.73980	1920.4

4. Notice on using:

This cruise report is a preliminary documentation as of the end of the cruise. It may not be corrected even if changes on content (i.e. taxonomic classifications) are found after publication. It may also be changed without notice. Data on the cruise report may be raw or not processed. Please ask the PI(s) for the latest information before using. Users of data or results of this cruise are requested to submit their results to Data Integration and Analysis Group (DIAG), JAMSTEC.