



## R/V Kaiyo Cruise Report

KY14-07

High resolution seismic reflection survey

-Research project for compound disaster mitigation on the  
great earthquakes and tsunamis around the Nankai trough  
region-

May. 28, 2014 – Jun. 10, 2014

Japan Agency for Marine-Earth Science and Technology

(JAMSTEC)

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1. Cruise Information :

(1) Cruise number, Ship name: KY14-07, R/V Kaiyo

(2) Title of the cruise:

2014FY “Research project for compound disaster mitigation on the great earthquakes and tsunamis around the Nankai trough region”

(3) Title of proposal:

Research project for compound disaster mitigation on the great earthquakes and tsunamis around the Nankai trough region

(4) Cruise period, Port call:

2014/05/28-2014/06/10, Wakayama Port to Sumijyu Port (Yokosuka)

(5) Research Area: from off Shikoku to off Kii Peninsula

(6) Research Map:

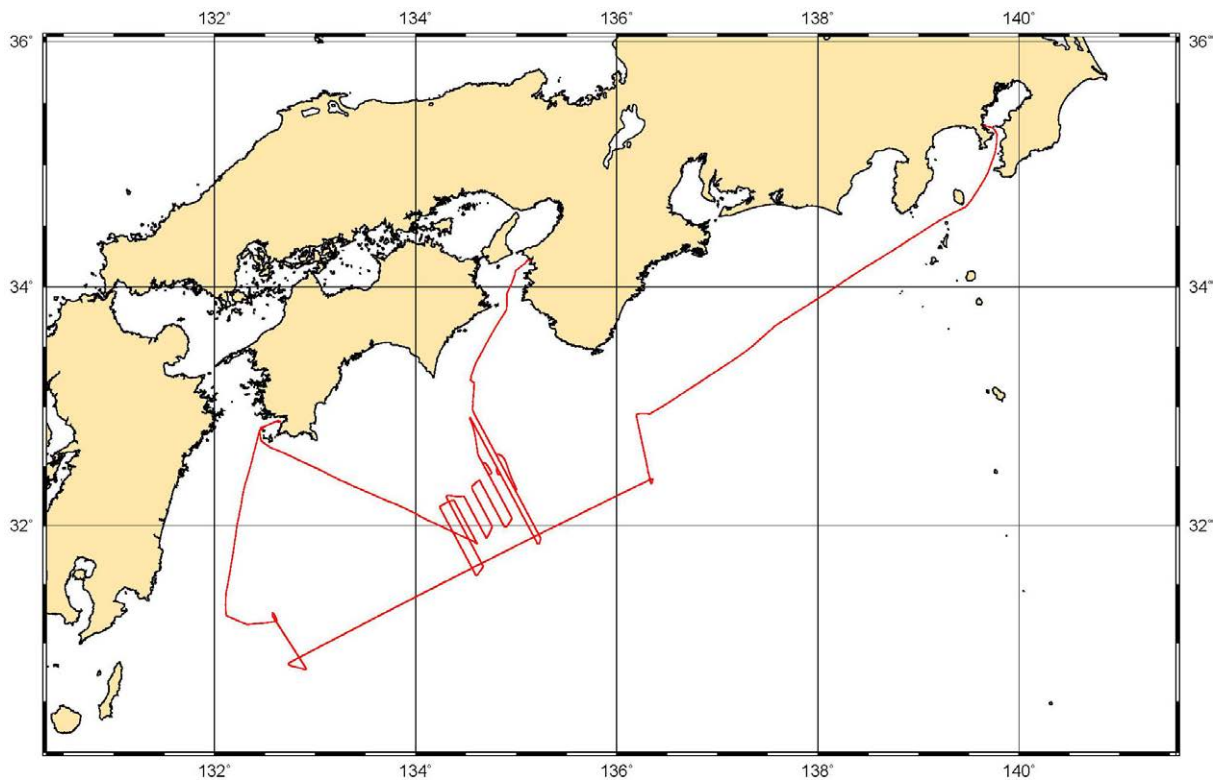


Figure shows the ship track during KY14-07 cruise.

## 2. Researchers

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(2) Representative of Science Party [Affiliation]:

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(3) Science part list:

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### 3. Overview of Observation :

#### (1) Objectives:

2011 Tohoku earthquake produced large disaster Tsunami by rupture from deep region to trench axis. Recently, drilling results suggests that there is large slip around trough axis in Nankai Trough. Therefore, high resolution multi-channel seismic reflection survey is carried out around the Nankai Trough in order to understand the distribution about the turbidite.

#### (2) List of observation instruments:

##### 1) Seismic reflection survey

Seismic reflection surveys were carried out on all survey lines off Kochi using the airgun array of 380 cu. inch and a 192-ch. hydrophone streamer.

##### 2) Bathymetry observation

During this cruise, bathymetry data have been recorded continuously by SEABEAM2112.

##### 3) Temperature, Conductivity and Depth observation for oceanic fine imaging in reflection experiment

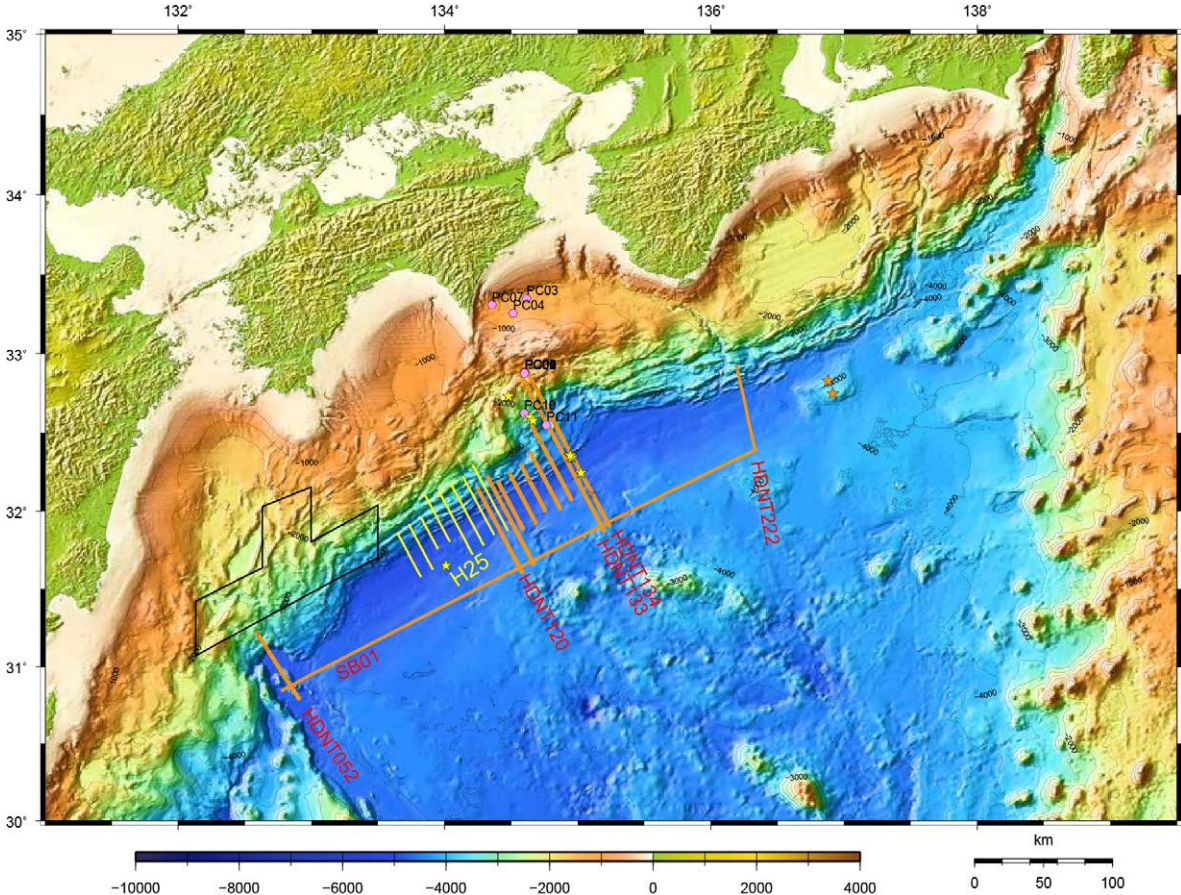
We have conducted 2 XCTDs (eXpendable Conductivity, Temperature and Depth).

#### (3) Cruise log:

Date		Remarks
2014/05/28	Wed	Departure from Wakayama Port, and MCS survey on line HDNT134
2014/05/29	Thu	MCS survey on line HDNT134
2014/05/30	Fri	MCS survey on line HDNT133
2014/05/31	Sat	MCS survey on lines HDNT131, HDNT129 and HDNT127
2014/06/01	Sun	MCS survey on lines HDNT127, HDNT125 and HDNT122
2014/06/02	Mon	MCS survey on lines HDNT120 and HDNT123
2014/06/03	Tue	Standby due to weather condition (Sukumo Bay)
2014/06/04	Wed	Standby due to weather condition (Sukumo Bay)
2014/06/05	Thu	MCS survey on line HDNT052
2014/09/06	Fri	MCS survey on lines HDNT052 and SB01
2014/09/07	Sat	MCS survey on line SB01
2014/09/08	Sun	MCS survey on lines SB01 and HDNT222
2014/06/09	Mon	Transit to Yokosuka
2014/06/10	Tue	Arrive at Sumijyu Port (Yokosuka)

(4) Multi-channel seismic reflection survey

a) Map of survey line



Orange lines show the MCS survey line of KY14-07 cruise. Yellow lines show the survey line of KY13-11 cruise.

b) Shooting coordinates

Line name	Latitude (N)	Longitude (E)
HDNT052	31_12.70250'	132_35.58217'
	30_47.06317"	132_54.66583'
HDNT120	31_36.56450'	134_34.83700'
	32_09.08950'	134_14.50700'
HDNT122	32_12.93050'	134_19.28467'
	31_39.42117'	134_40.24817'
HDNT123	32_10.94883'	134_24.13150'
	31_52.74000'	134_35.54783'
HDNT125	31_55.48683'	134_41.02633'
	32_14.64850'	134_29.01867'
HDNT127	32_17.49567'	134_34.42633'
	31_59.67983'	134_45.60867'
HDNT129	32_01.07817'	134_51.94333'
	32_22.63583'	134_38.40550'
HDNT131	32_32.55883'	134_39.34733'
	32_03.91833'	134_57.37717'
HDNT133	31_52.34117'	135_11.80750'
	32_54.37633'	134_32.70467'
HDNT134	32_55.71217'	134_35.46250'
	31_53.78783'	135_14.51950'
HDNT222	32_22.84083'	136_19.99533'
	32_55.68567'	136_11.60400'
SB01	30_50.64667'	132_46.19900'
	32_23.78667'	136_20.92000'

c) Preliminary results

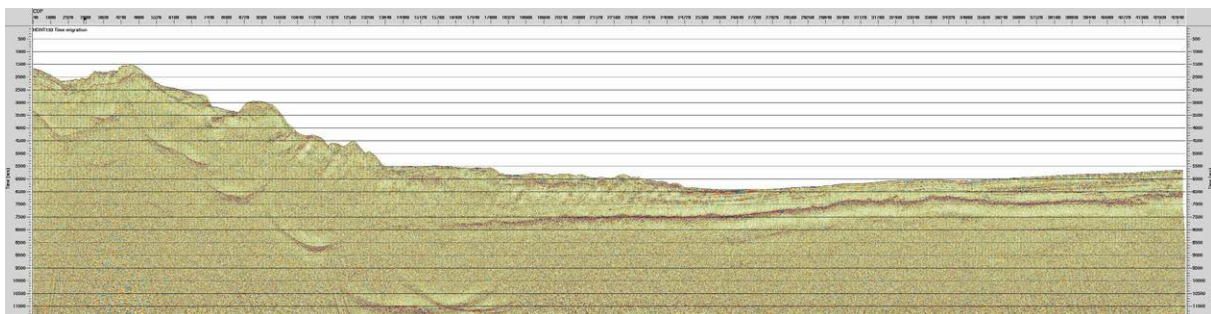


Figure shows onboard seismic reflection section of line HDNT133

#### **4. Notice on Using**

Notice on using: Insert the following notice to users regarding the data and samples obtained.

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.