

## Cruise summary

### 1. Cruise Information :

(1) Cruise number, Ship name: KY12-02, R/V Kaiyo

(2) Title of the cruise: 2011FY “High resolution imaging of subducting sediments in Nankai Trough using seismic reflection survey”

(3) Chief Scientist [Affiliation]: Mikiya YAMASHITA [JAMSTEC]

(4) Representative of Science Party [Affiliation]:  
Yoshiyuki TATSUMI [JAMSTEC]

(5) Title of proposal:

High resolution imaging of subducting sediments in Nankai Trough using seismic reflection survey

(6) Cruise period, Port call:

2012/2/3-2/12, JAMSTEC (Yokosuka) to JAMSTEC (Yokosuka)

(7) Research Area: from off Kii Peninsula to off Tokai

(8) Research Map:

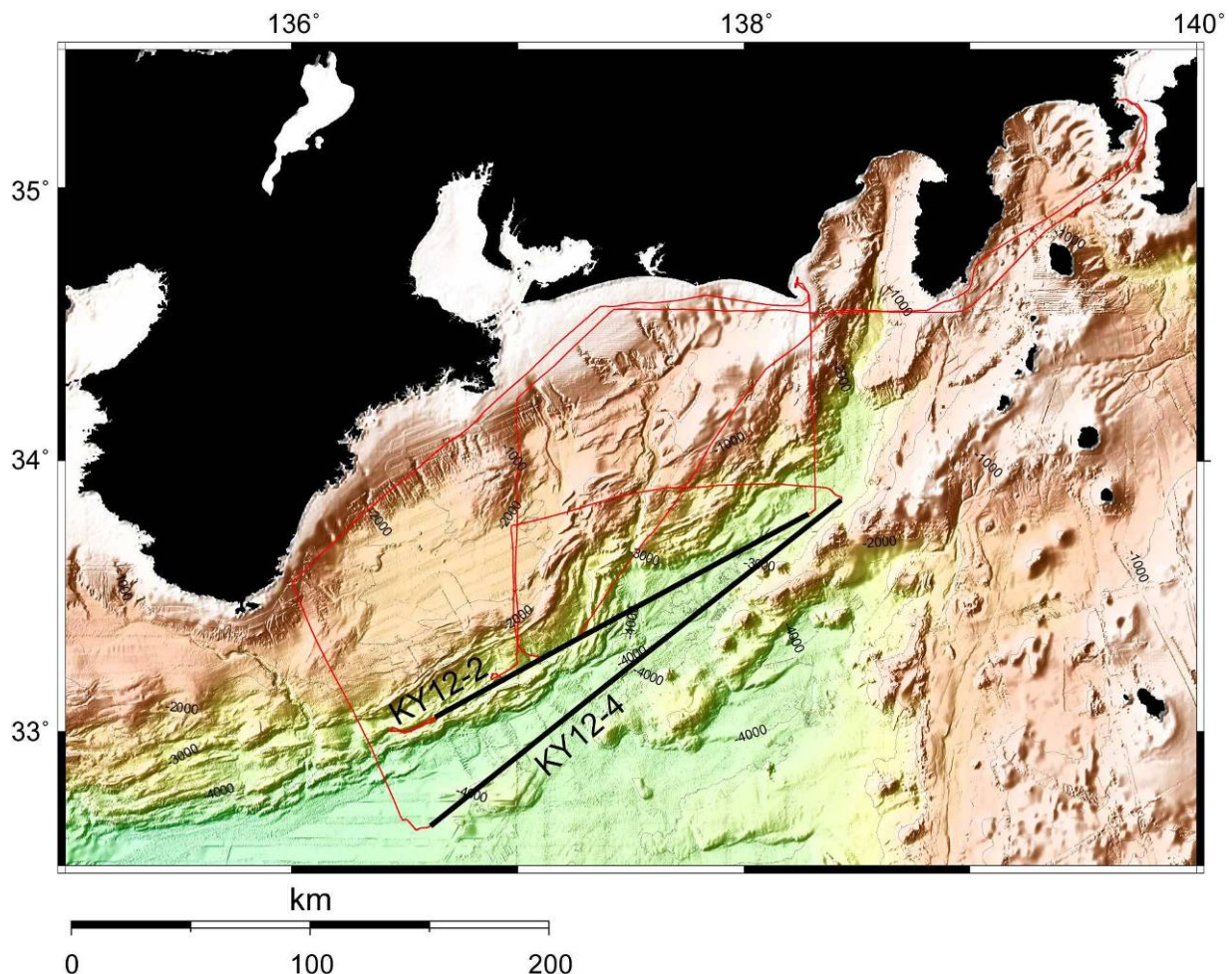


Fig.1 Ship track on KY12-02 cruise. Black lines show the MCS line.

## 2. Overview of Observation :

### (1) Objectives :

High resolution multi-channel seismic reflection survey is carried out along the Nankai Trough in order to understand the mechanism about the creation of decollement zone. Obtained data will be expected to illuminate the origin and carrier channel of volcanic sediments which recognized in the core obtained by IODP No.322 cruise.

### (2) List of observation instruments :

#### 1) Seismic reflection survey

Seismic reflection surveys were carried out on lines KY12-2 and KY12-4 from off Kii Peninsula to off Tokai, using the airgun array of 320 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 20 XCTDs (eXpendable Conductivity, Temperature and Depth) and 5 XBTs (eXpendable-Bathy Thermographs ).

### (3) Preliminary results

Figure 2 shows the record section obtained in line KY12-2.

