

Cruise summary

1. Cruise Information :

(1) Cruise number, Ship name: YK16-13, R/V Yokosuka

(2) Title of the cruise: 2016FY “Research project for compound disaster mitigation on the great earthquakes and tsunamis around the Nankai trough region”

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

(4) Representative of Science Party [Affiliation]:
Shuichi Kodaira [JAMSTEC]

(5) Title of proposal:

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

(6) Cruise period, Port call:

2016/9/25-10/7, Kagoshima Port to Kobe Port (Yokosuka)

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

(8) Research Map:

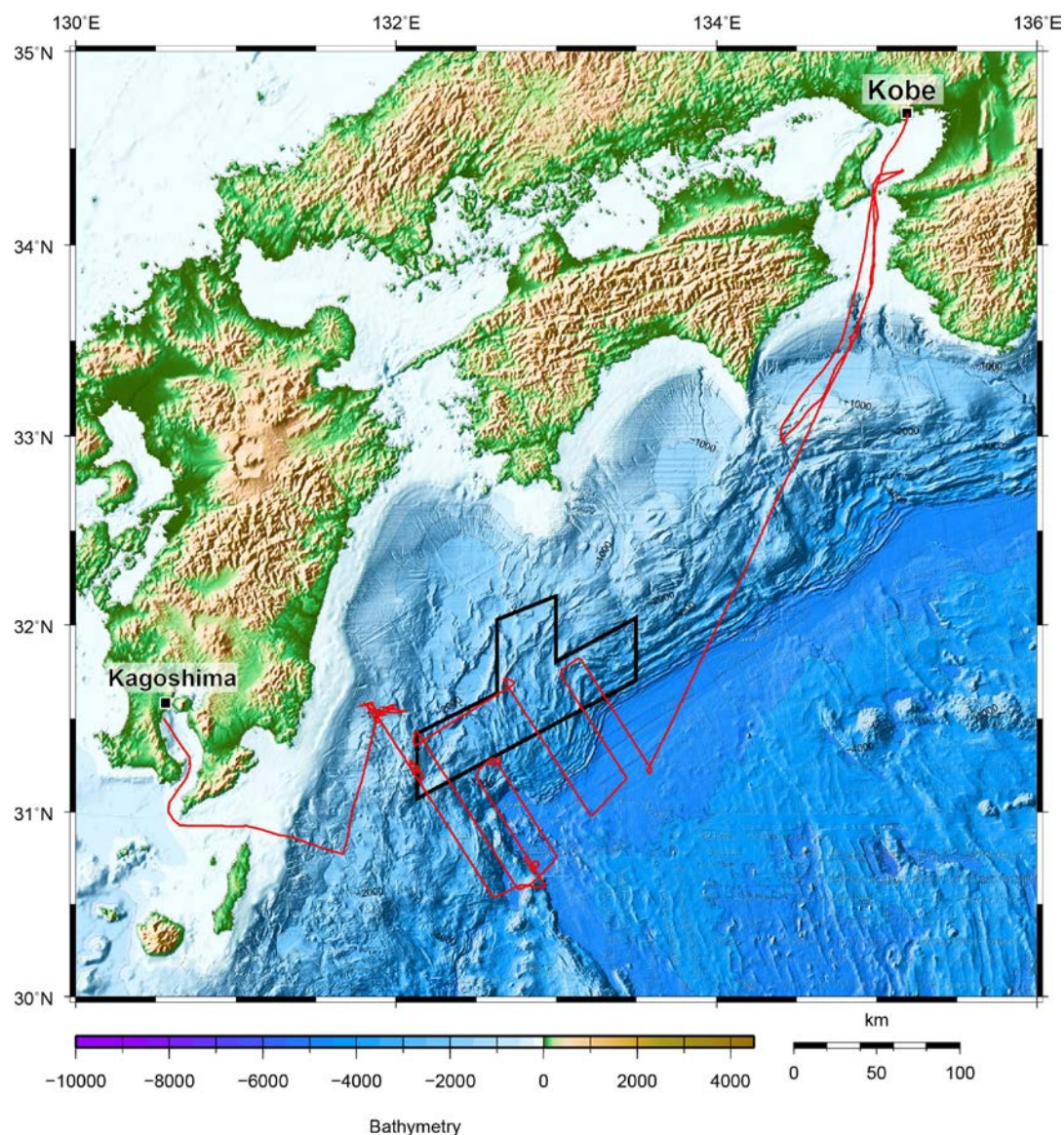


Figure 1 Ship track on YK16-13 cruise. Black box shows RIMA zone.

2. 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 from off Shikoku to off Kii Peninsula using the airgun array of 230 cu. inch and a 192-ch. hydrophone streamer.

2) Bathymetry observation

During this cruise, bathymetry data have been recorded continuously by EM122.

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

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

4) Sub-bottom profiler survey

During this cruise, sub-bottom profiles have been acquired along MCS survey lines.

5) ADCP observation

We have conducted ADCP (Acoustic Doppler Current Profiler) survey during this cruise.

(3) Preliminary results

Figure 2 shows the onboard seismic reflection profile on line HDNT103 during YK16-13 cruise.

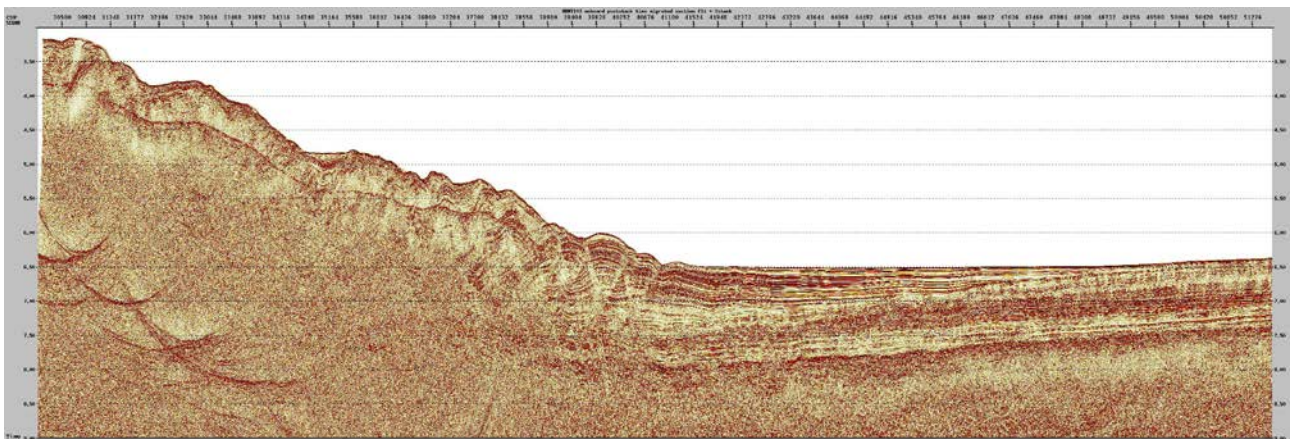


Figure 2 Onboard seismic reflection profile of line HDNT103