Submit: 2nd, Mar 2015

Cruise summary

1. Cruise Information

Cruise ID: YK14-E01

Name of vessel: YOKOSUKA

Title of the cruise: Geological and geophysical surveys for understanding Mega-earthquake and Tsunami mechanism in subduction zone: Paleoseismilogy: piston coring

Chief scientist [Affiliation]: Toshiya Kanamatsu [CEAT-JAMSTEC]

Representative of Science Party [Affiliation]: Shuichi Kodaira [CEAT-JAMSTEC]

Title of proposal: Geological and geophysical surveys for understanding Mega-earthquake and Tsunami mechanism in subduction zone: Paleoseismilogy: piston coring

Cruise period: 13th, Nov – 28th, Nov 2014

Ports of call: Yokosuka-Hachinohe

Research area: Off Tohoku

Map of research area: Fig.1

2. Background and purpose

It has been realized that the importance of understanding recurrence interval of mega earthquakes recorded in the deep sea sediment after Tohoku earthquake, our research was to aim to document the evidence of Tohoku-oki earthquakes in sediment in the lower slope in order to establish the earthquake recurrence in Tohoku-oki.

3. Overview of the Observation

Target area is the terrace in the lower landward slope: so called mid slope terrace. The water depth ranges from 4000 to 6000m.We visited the area, where was not been surveyed during the previous cruise NT13-19 for piston coring. Additionally multiple coring were conducted to investigate the surface sediment alteration after 2011 event in shallow water depth. Bathymetric and sub bottom surveys were also conducted. We conducted 10 piston coring, and four multiple coring operations.

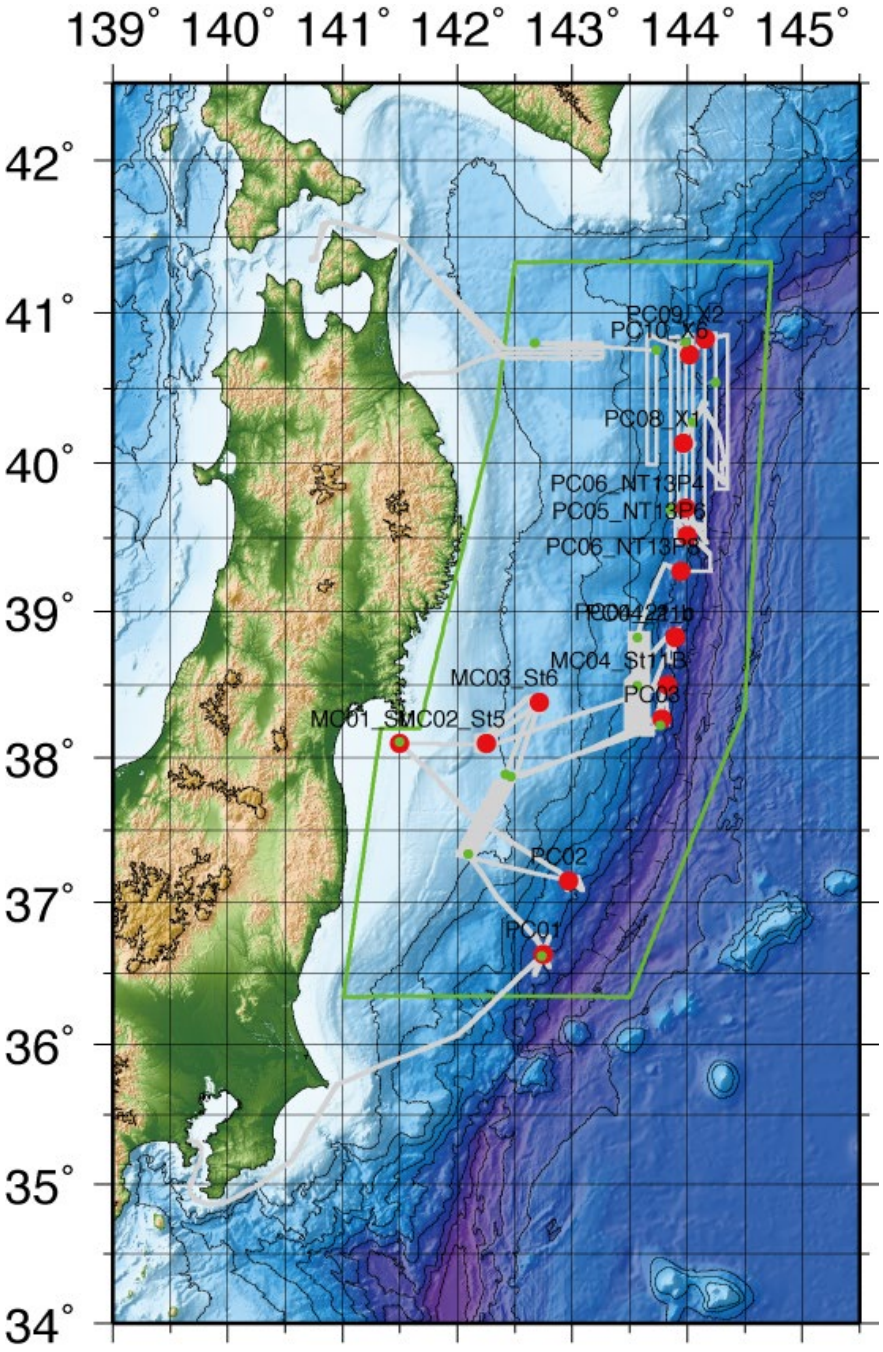

Fig. 1. Ship track of YK14-E01