

Cruise summary

1. Cruise Information :

- (1) Cruise number, Ship name: KR17-14 Leg1, R/V Kairei
- (2) Title of the cruise: 2017FY "Site survey related IODP project: Mohole Project"
- (3) Chief Scientist [Affiliation]: Mikiya YAMASHITA [JAMSTEC]
- (4) Representative of Science Party [Affiliation]:
Shuichi Kodaira [JAMSTEC]
- (5) Title of proposal: Site survey related IODP project: Mohole Project
- (6) Cruise period, Port call:
2017/9/16-9/25, Honolulu Port to Honolulu Port (USA)
- (7) Research Area: East off Hawaii islands
- (8) Research Map:

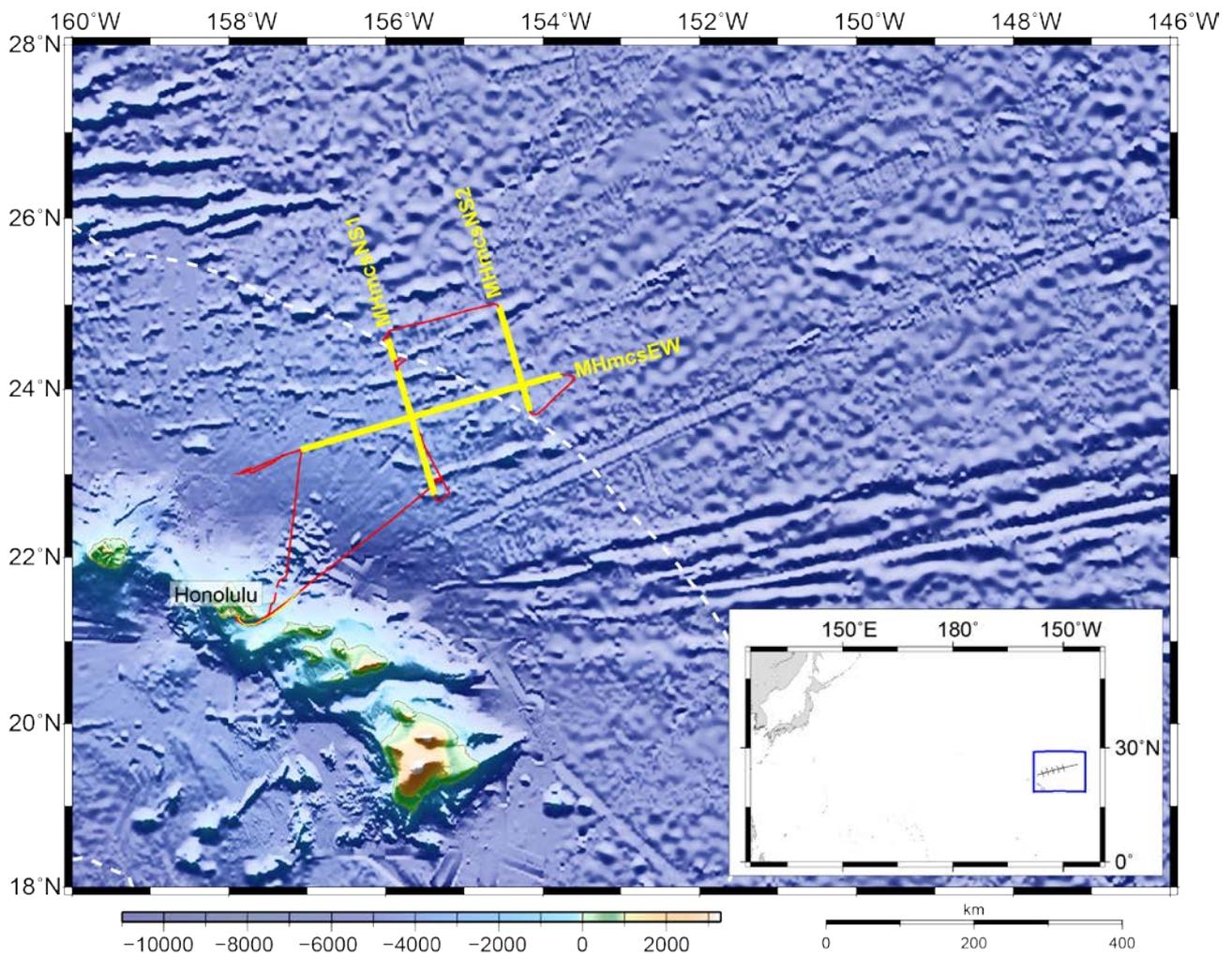


Figure 1 Ship track on KR17-14 cruise. White dotted line shows EEZ of United States.

2. Overview of Observation :

(1) Objectives :

The primary objective of this study is to image a typical/stable oceanic crust, mantle and Moho, on the basis of crust and uppermost mantle structure imaged by seismic refraction and reflection data. To understand nature of Moho (seismically defined crust/mantle boundary) is an ultimate goal of this study.

(2) List of observation instruments :

1) Seismic reflection survey

Seismic reflection surveys were carried out on all survey lines east off Hawaii islands using the airgun array of 7,800 cu. inch and a 444-ch. hydrophone streamer.

2) Bathymetry observation

During this cruise, bathymetry data have been recorded continuously by Sea Beam 3012.

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.

(3) Preliminary results

Figure 2 shows the example of onboard seismic reflection profile during KR17-14 cruise.

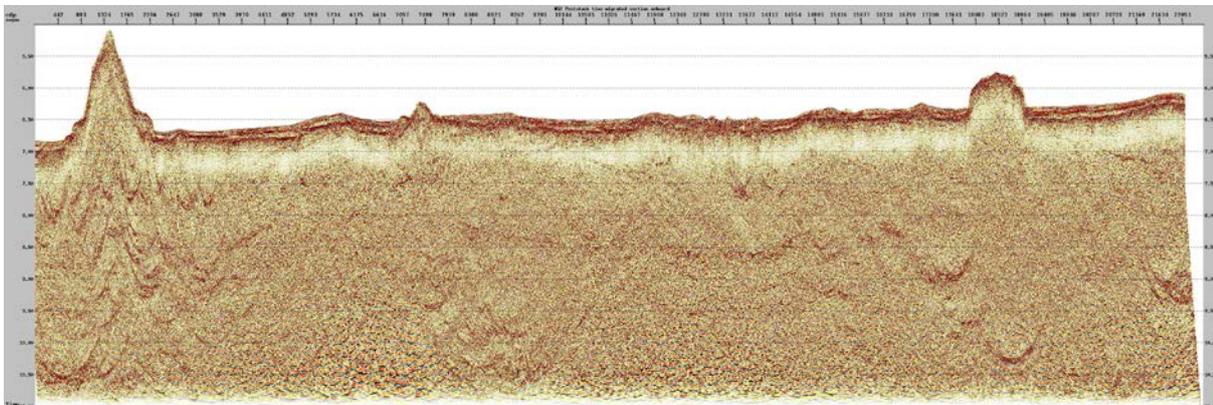


Figure 2 Example of onboard seismic reflection profile of line MHmcsNS2.