

1. Cruise Information

1-1. Cruise number

YK09-13 leg1

1-2. Name of vessel

Yokosuka, Shinkai 6500

1-3. Title of the cruise

FY2009 Deep Sea Research Cruise

1-4. Chief scientist

Kensaku Tamaki

Graduate School of Engineering, The University of Tokyo

1-5. Title of the proposal

“Diving program of the Rodriguez Segment at the Central Indian Ridge”

1-6. Cruise period

2009/10/10 – 2009/10/29

1-7. Port of call

From Port Louis, Mauritius, 2009/10/10

To Port Louis, Mauritius, 2009/10/29

1-8. Research Area

Rodriguez Segment of the Central Indian Ridge (box area in the map)

17°40.0'S 64°30.0'E 20° 20.0' S 66° 30.0' E



2. Overview of the Observation

2-1. Objectives

To discover active hydrothermal sites at the Rodriguez Segment of the Central Indian Ridge based on the CTD/AUV surveys by the previous cruise.

2-2. Operations conducted

(1) Survey by submersible

- ① Search survey of active hydrothermal sites
- ② Sampling hydrothermal water
- ③ Sampling of chimneys
- ④ Biological sampling
- ⑤ Rock sampling
- ⑥ Observation of seafloor geology
- ⑦ Deep-sea three component magnetometer survey
- ⑧ Acoustic sonar survey by DIDSON
- ⑨ In-situ Mn analyses by GAMOS

(2) Survey by mother ship

- ① Swath mapping survey by SeaBeam
- ② Magnetic survey by proton magnetometer and onboard three-component magnetometer
- ③ Deep-tow video and multi sensor survey