

Cruise Summary

1. Cruise Information

- (1) Cruise ID : KM16-09
- (2) Name of vessel : Research Vessel *Kaimei*
- (3) Title of the cruise : Training cruise for Power Grabs
- (4) Chief of the party : Fujio Yamamoto [JAMSTEC]
- (5) Cruise period : 2016/10/17 ~ 10/25
- (6) Ports of departure / arrival : JAMSTEC / JAMSTEC
- (7) Survey area : Sagami-bay, Bayonnaise, Northern part of Nankai trough

2. Overview of the Observation

- (1) Training for launch and recovery of 2 Power Grabs

To understand and practice the launch and recovery procedure for two Power Grabs were safely conducted during mobilization and KM16-09 cruise. How to secure the Power Grab during launch and recovery was confirmed.

- (2) Operation training of the Power Grab

Communication with the Power Grab from a control van and equipment test installed on the Power Grab were conducted. Understanding the tools equipped with the Power Grab and sampling were also conducted. Rock and mud samples were finally gathered in the Bayonnaise and Sagami-bay

- (3) Ship's control during the survey

Ship control while tracking the Power Grab during operation was confirmed.

- (4) Equipments onboard the R/V *Kaimei*

Analysis equipments installed at the No.3 laboratory were used and checked based on the onboard sample processing flow during sample measurements.

- (5) Check the Power Grab operation manual.

Power Grab operation manual was checked and was modified if it was required.

- (6) Hull mounted acoustic measurement systems

Bathymetric and sub-bottom survey were conducted before actual Power Grab operation. During the operation, acoustic navigation system was used to measure the geo-graphic position and depth of the Power Grab. Continues meteorological measurements were also conducted during the cruise.

- (7) Investigation of the BMS winch vibration

Three times of BMS cable free fall were conducted to measure the winch vibration and to log the electrical output signal from the winch inverter lacks.