

## Cruise Summary

### 1. Cruise Information

- Cruise ID KY10-03
- Name of vessel R/V Kaiyo
- Title of the cruise Internal use of research vessel for construction of dense ocean floor network for earthquake and tsunamis (DONET).
- Chief scientist [Affiliation] Yoshiyuki Kaneda (JAMSTEC)
- Representative of the Science Party [Affiliation] Eiichiro Araki (JAMSTEC)
- Title of proposal
- Cruise period 2/20/2010 – 3/4/2010
- Ports of call Yokosuka JAMSTEC HQ – Mikawa-bay – Yokosuka JAMSTEC HQ
- Research area Kumano-nada

### 2. Overview of the Observation

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JAMSTEC has been conducting development of monitoring system for earthquake and tsunamis since 2006 under a contracted research program from MEXT, “Development of monitoring system of earthquake and tsunami (DONET)”. The development consists from development of network system that can deploy seismometers and tsunami sensors densely in offshore Kii Peninsula. This cruise was conducted to construct the DONET network in Kumano-nada area.

During KY10-03 cruise, we conducted 10 gravity coring operation to install seafloor casing for seismic sensor installation in the Kumano area of the Nankai Trough. Among these coring shots, we successfully installed seafloor casing in 4 shots. We also installed two seafloor casings unintended due to excess stress applied on the connecting wire between the casing and the corer. These installed seafloor casings will be utilized to house buried ocean bottom seismic sensor for DONET.

Latter half leg of KY10-03 cruise suffered from rough sea condition. There were no seafloor survey operation conducted as planned, but free fall cable of “Deep Tow” was conducted for keeping condition of the “Deep Tow”.