



July 19, 2012  
JAMSTEC

### **Integrated Ocean Drilling Program (IODP) Expedition 343T Japan Trench Fast Drilling Project (Completed Installation of Observatory Assembly at Fault Zones in Japan Trench)**

The Japan Agency for Marine-Earth Science and Technology (JAMSTEC: Asahiko Taira, President) deployed the Deep-Sea Scientific Drilling Vessel *Chikyu* from 5 July 2012 to conduct Expedition 343T the Japan Trench Fast Drilling Project. Installation of the observatory assembly to measure temperatures in the borehole ([Figures 1, 2](#)) was completed on 16 July. Following this, the underwater TV system camera and the drilling pipe was lifted and recovered. The expedition was completed on 19 July.

Installation of the observatory assembly has the objective of directly observing the long-term changes in the frictional heating at the plate boundary fault in order to clarify the frictional properties of the fault that caused the megaquake and tsunami. It is anticipated this data will clarify the slipping mechanism of the plate boundary fault near the trench axis that caused the great tsunami. This is the world's first attempt to measure temperatures of a plate boundary fault soon after an ocean trench earthquake.

The schedule is to recover the observatory assembly this autumn.

#### **D/V *Chikyu* Operating Plan (Schedule)**

- July 19 - July 26                      Hachinohe Port
- July 26 - September 27    IODP ([\\*1](#)) Expedition 337: Deep Coalbed Biosphere off Shimokita-Microbial Processes and Hydrocarbon System Associated with Deeply Buried Coalbed in the Ocean

*The above schedule is subject to change depending on operational requirements or weather.*

### **\*1. The Integrated Ocean Drilling Program (IODP)**

IODP is an international marine research drilling program dedicated to advancing scientific understanding of the Earth by monitoring and sampling subseafloor environments. Through multiple platforms, scientists explore IODP's principal themes: the deep biosphere, environmental change, and solid Earth cycles. IODP has been in operation since October 2003, funded jointly by the Japan Ministry of Education, Culture, Sports, Science and Technology and by the U.S. National Science Foundation. Additional support is provided by the 18 - member European Consortium of Ocean Research Drilling, the People's Republic of China, the Republic of Korea, Australia, India, and New Zealand.

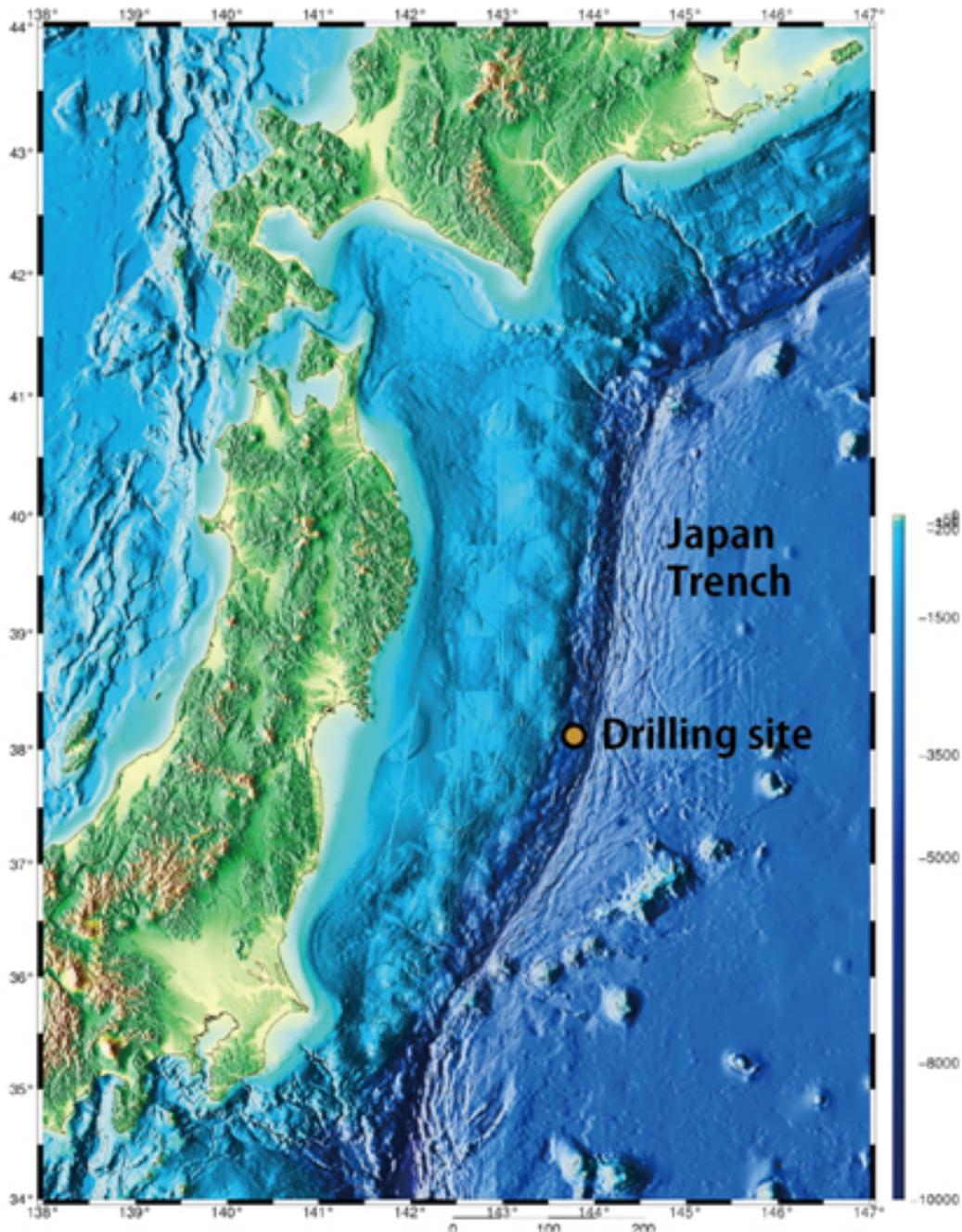


Figure 1. Drill Site

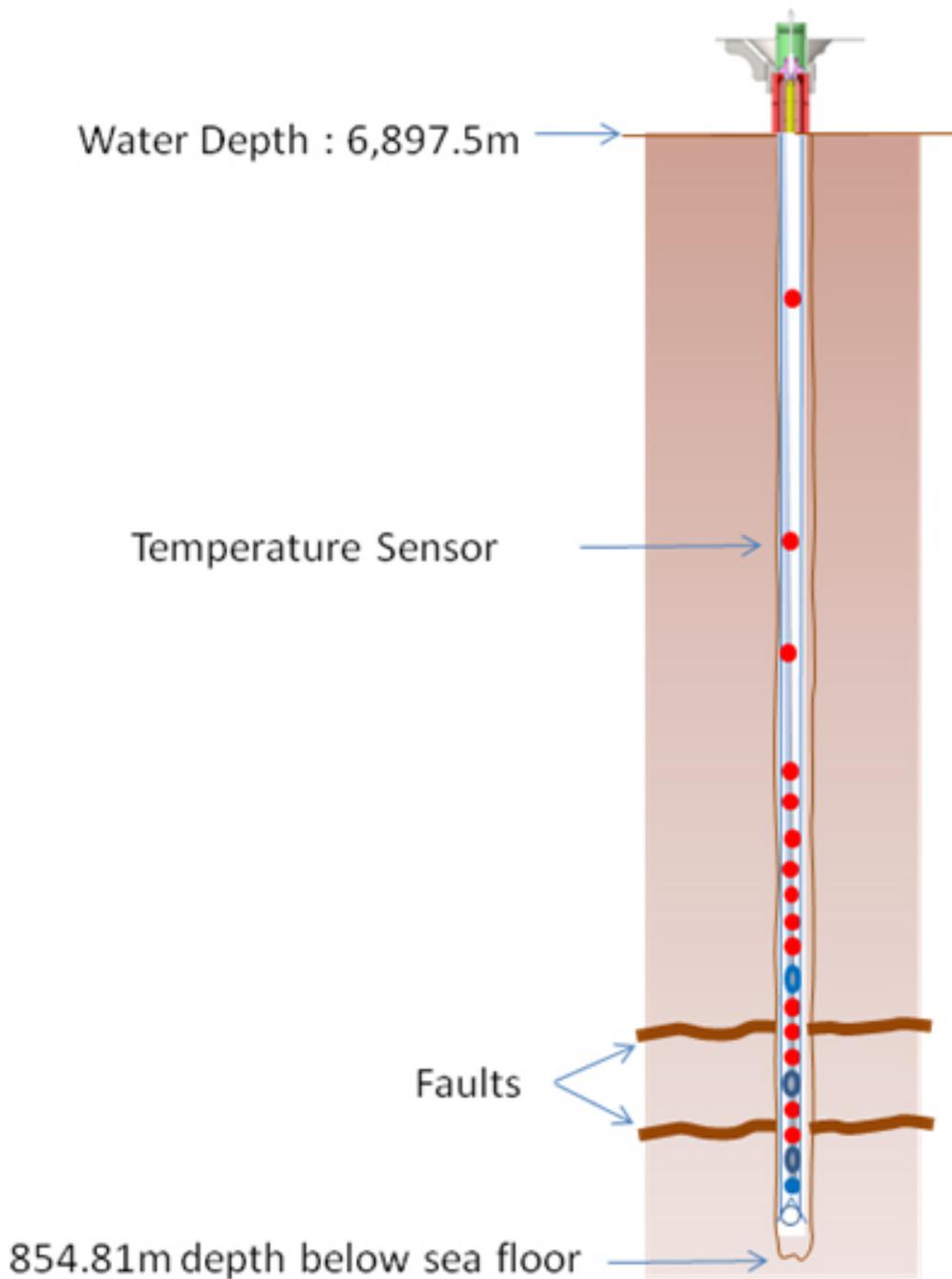


Figure 2. Observatory assembly

Contacts:

Japan Agency for Marine-Earth Science and Technology  
(For *Chikyu*)

Yasuo Yamada, Director  
Planning and Coordination Department  
Center for Deep Earth Exploration (CDEX)  
Email: [cdex@jamstec.go.jp](mailto:cdex@jamstec.go.jp)

(For publication)

Kazushige Kikuchi, Director  
Planning Department Press Office  
Email: [press@jamstec.go.jp](mailto:press@jamstec.go.jp)