Press Releases

March 7, 2018
JAMSTEC

International Ocean Discovery Program Expedition 375 "Hikurangi Subduction Margin Coring and Observatories" to Start

The International Ocean Discovery Program (IODP[*1]) will begin Expedition 375, "Hikurangi Subduction Margin Coring and Observatories: unlocking the secrets of slow slip through drilling to sample and monitor the forearc and subducting plate" aboard the *JOIDES Resolution*[*2] on March 8, 2018.

This expedition aims to investigate the processes of slow slip events (SSEs) at the northern Hikurangi subduction margin, New Zealand (Fig.1) as well as in-situ conditions that underlie subduction zone SSEs through coring of the frontal thrust, upper plate, and incoming sedimentary succession. This expedition will culminate in the installation of borehole observatories in the frontal thrust and upper plate above the slow slip source area. Drilling will be carried out at four sites within the overriding and subducting plates to recover sediments, rocks, and pore fluids; collect geophysical logs; and make downhole measurements. Borehole observatories will be installed at two of these drill sites to monitor physical, hydrological, and chemical changes throughout the SSE cycle.

The shipboard researchers are comprised of 31 members, including four scientists from Japan, and also from the U.S., Europe, New Zealand, Brazil, China and South Korea.

For more details, please refer to:
IODP Expedition 375 website

http://iodp.tamu.edu/scienceops/expeditions/hikurangi_subduction_margin.html

*1 The International Ocean Discovery Program (IODP) is a multinational cooperative project that was started in October 2013. The scientific drilling vessel (D/V), *Chikyu*, operated by Japan, and the *JOIDES Resolution*, operated by the U.S., are utilized for expeditions. There is also an option for European countries to charter mission-specific platforms. The IODP's mission is to shed light on global environmental changes, the mantle and crust dynamics and tectonics of the Earth, and the biosphere beneath the seafloor. IODP took over the Integrated Ocean Drilling Program conducted from October 2003 to 2013.

*2 The *JOIDES Resolution* is the U.S. drilling vessel that participates in the IODP. Compared to the Deep-sea Scientific Drilling Vessel *Chikyu* by JAMSTEC, the *JOIDES*

Resolution is used more often for drilling in shallow waters.

JOIDES Resolution ©IODP

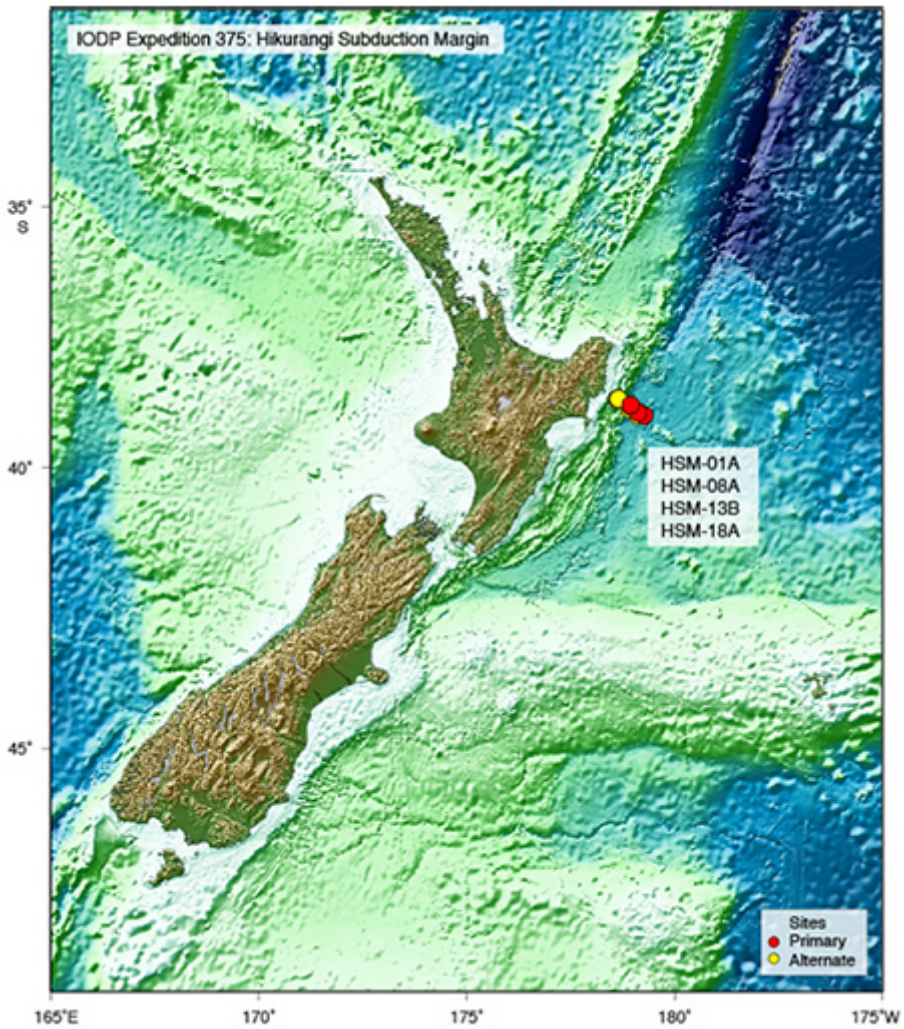

Figure 1. Drilling sites in this exxpediction 375 ©IODP

Table 1. Overview of Drilling Sites (order of drilling)

Site /Boreholes	Water Depth	Depth of penetration
HSM-18A	3,168m	700m
HSM-13B	3,508m	1,500m
HSM-01A	994m	650m

HSM-08A	2,908m	200m

(These drilling sites are subject to change depending on cruise prepartion, climate conditions, research progress, and expedition time constraints.)

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