

## **IODP Expedition 372: Creeping Gas Hydrate Slides and Hikurangi LWD**

### **Week 2 Report (4–10 December 2017)**

#### **Operations**

The ship departed the anchorage area in Cockburn Sound at 1706 h on 3 December and began the 3450 nmi voyage to Site U1517. By 0000 h on 10 December the vessel had travelled 2030 nmi and had passed through the Bass Strait and into the Tasman Sea. During the transit, the pressure core sampler (PCS) tools were pressure tested and readied for operations, and a degassing station for the PCS cores was set up in the core splitting area. The Schlumberger logging-while-drilling (LWD) engineers made their tools ready for operations and completed preparations for arrival on site.

#### **Science Results**

The Expedition 372 science party spent the week preparing for LWD and coring operations.

All of the scientists presented their research interests and postcruise research plans for Expedition 372 and 375 to facilitate collaborations and begin finalizing core sampling plans. The Operations Superintendent gave an overview of drilling and coring operations related to the Expedition. The Co-Chief Scientists introduced the IODP JRSO technical staff and ship's crew to the Expedition 372 science objectives. Scientists participated in a borehole imaging workshop and several science seminars were held in the evenings.

The laboratory teams worked on Methods chapters for the Expedition Reports. As part of this, they created templates for the visual core descriptions (VCD) and for the downhole logging data. The Core Description and Physical Properties teams met with members of the technical staff to begin laboratory training. The Downhole Measurements group discussed site report workflow and divided up into subdisciplines.

A ship-to-ship video conference was held with the IODP Corinth Active Rift Development Expedition (381), currently operating in the Gulf of Corinth off the coast of Greece. The Expedition 372 and 381 Co-Chief Scientists shared the scientific goals of their respective expeditions and the Expedition 381 Co-Chiefs and science party gave us a tour of their vessel and laboratory spaces.

## **Education and Outreach**

Education and outreach activities included 13 live video broadcasts, as well as multiple blog and social media posts. Audiences included the ANZIC Masterclass, GNS Science, National Aquarium of New Zealand, Colorado School of Mines, and multiple elementary, junior high, and high schools in the United States. These events included ship tours, explanations of expedition science, and Q&A sessions with scientists and technical staff.

The social media posts for this week include: 15 posts to Twitter (<https://twitter.com/TheJR>); three posts to Instagram ([http://instagram.com/joides\\_resolution](http://instagram.com/joides_resolution)); 15 posts to Facebook (<https://www.facebook.com/joidesresolution>); and seven original videos to YouTube (<https://www.youtube.com/user/theJOIDESResolution/>). Six blog posts were made and posted to the <http://joidesresolution.org> page. Topics included advertising live broadcasts, interviews with individuals on the ship, discussion of free time activities on the ship, nautical flags, and time zone changes. We were notified this week that the *JOIDES Resolution* blog was selected as #17 on the list of the Top 50 Oceanic Blogs on the web (see the full list at [https://blog.feedspot.com/oceanic\\_blogs/](https://blog.feedspot.com/oceanic_blogs/)).

## **Technical Support and HSE Activities**

IODP JRSO technical staff engaged in various maintenance projects, laboratory setup, and scientist training, as well as preparing for coring operations.

### *Laboratory Activities*

- The PCS degassing station is being set up in the core splitting room; the manifold system is assembled and mounted and is ready for pressure testing.
- The technical staff have been working on a water recirculation setup to keep the PCS cold while degassing is occurring.
- A new ice maker was assembled on the catwalk so that ice is readily available to keep the pressure cores cold.
- Standards for Expedition 372 and 375 X-ray diffraction (XRD) measurements are currently being run in the XRD laboratory in preparation for core samples. The whole-round multisensor track systems are being reassembled and one is completely operational and ready for coring to begin.

### *Application Support and I.T. Activities*

- Software updates for the pocket penetrometer are in progress because there is currently an inability to report adapter size upon upload.
- Software changes are being made to the gantry velocity station.

- The moisture and density software was updated so that it will work with newly installed web services software.

#### *HSE Activities*

- The technical staff completed the weekly check of the safety showers and eyewash stations.
- The weekly fire and boat drill was held on 10 December.