

IODP Expedition 374: Ross Sea West Antarctic Ice Sheet History

Week 8 Report (18–24 February 2018)

Operations

Week 8 of Expedition 374 (Ross Sea West Antarctic Ice Sheet History) began while underway to a rendezvous point 12 nmi from the pilot station at Lyttelton, New Zealand. The vessel arrived at 0148 h on 19 February 2018 and the thrusters were lowered, switching to dynamic positioning control at 0230 h. The 1876 nmi voyage from Site U1525 in the Ross Sea to the waypoint outside Lyttelton was completed in 7.2 d averaging 10.7 kt. After arriving at the waypoint, we received confirmation that we could move to a berth in Lyttelton to shelter from approaching Cyclone Gita. We raised the thrusters and began the short transit to Lyttelton. The pilot boarded the vessel at 1342 h on 19 February and the 30 nmi transit to Lyttelton ended with the first line ashore at Berth #2 West at 1512 h on 19 February. Upon arrival we loaded supplies to repair the vessel; these repairs were completed by 22 February. A pilot boarded the vessel at 0754 h on 22 February and we shifted to Berth #7 East, with the first line secure at 0902 h. We loaded two refrigerated containers of catering supplies on 23 February. We also loaded three flats of drill pipe to the riser hold and offloaded an empty core liner box. At the end of Week 8 we were tied up alongside Berth #7 East in Lyttelton.

Science Results

The science party worked to complete all site reports and Methods sections, and also reviewed portions of the Expedition Summary. The Co-Chief Scientists and Staff Scientist worked to compile the Expedition Summary. Small groups of scientists met with the Co-Chief Scientists to discuss method-specific postcruise research plans. We also held science meetings to finalize postcruise research plans for the Miocene, Pliocene, and Pleistocene intervals at each site. Following these meetings, scientists revised their individual research plans and sample requests, together with proposed manuscript titles. All site reports and Methods sections were finalized by 0800 h on 22 February. We held the final science meeting of the expedition at 0930 h on 22 February to summarize expedition results and discuss postcruise activities, including the editorial meeting, sampling party, and postcruise research. The Co-Chiefs and Staff Scientist also finished compiling the Expedition Summary, with the exception of the Operations text. Scientists who rebooked travel began to disembark on 22 February. At the end of the week, 11 science party members (including 9 scientists, one Co-Chief Scientist, and one Educator) remained aboard.

Education and Outreach

This week, the Education and Outreach team conducted 15 live broadcasts with schools and museums in the USA (4), New Zealand (8), Canada (2), and Colombia (1). We also participated in a Reddit “Ask Me Anything” two-hour program to answer questions about the expedition science. Our videographer completed and posted several 360° tours of the vessel that covered a boat drill, daily life, ocean drilling, and the laboratories. She also conducted final interviews with members of the science party, as well as the Co-Chief Scientists.

Technical Support and HSE Activities

The following technical support activities took place during Week 8.

Laboratory Activities

- Finished processing all core and samples through the laboratories.
- Started laboratory cleanup.
- Remaining HF was moved to storage under the HF hood.
- JRSO staff started to evaluate tasks/projects that will take advantage of time made available by returning to port early.
- Staff began to prepare offgoing shipments.
- Two ceiling lights in the Core Laboratory were replaced with LED lights.

HSE Activities

- Tested safety showers and eye wash stations.
- An abandon ship, fire drill, and security drill were conducted on 18 February.