

IODP Expedition 395E: Complete South Atlantic Transect Reentry Systems

Week 7 Report (16–22 May 2021)

Week 7 of Expedition 395E, Complete South Atlantic Transect Reentry Systems, was spent in transit to Reykjavík, Iceland.

Operations

Transit

At the beginning of Week 7, the ship had completed 617 nmi of the total 5761 nmi transit to Reykjavík. During the week, the ship transited a further 1810 nmi at an average speed of 10.8 kt. By midnight on 22 May, we had completed 2427 nmi of the transit, with 3334 nmi remaining. The transit was estimated to take 22.6 days at a speed of 10.5 kt.

Science Results

X-ray diffraction, carbonate, and inductively coupled plasma–atomic emission spectroscopy (ICP-AES) measurements were completed for Site U1561.

Outreach

No onboard Outreach Officer is sailing during Expedition 395E. Social media posts were made via the JR Facebook (<https://www.facebook.com/joidesresolution>) and Twitter (<https://twitter.com/TheJR>) accounts, run by the JRSO technical staff.

Technical Support and HSE Activities

Laboratory Activities

- Continued debugging the superconducting rock magnetometer (SRM) IMS software.
- Documented the time needed to measure a core section on the SRM at different measurement spacings, for Expedition 395C paleomagnetists.
- *P*-wave velocity gantry problems were noted at the start of Expedition 395E, and are being addressed during the transit:
 - The motion commands in the control software were adjusted so that the caliper or bayonet motion no longer freezes during some software operations.
 - The gantry was calibrated using a new method; the manual will be updated to include the new method.

- The Y-bayonet and caliper sometimes do not respond to software commands after start-up. Restarting the software usually reestablishes communication, but we do not yet know the cause of this problem.
- In the Chemistry Laboratory, we fixed a leak in the reverse osmosis water tank, and started to repair the leak in the sink between the ICP and Carver presses.
- Worked on the perfluorocarbon tracer (PFT) fluid sensor Labview interface and calibrated the sensor with water.
- Started preparing the offgoing shipments for the upcoming Reykjavík portcall.
- Held a 3D printer and a Fusion 360 training course for technical staff.

IT Support Activities

- The cleaning tapes for the Commvault tape backup drives have now been correctly registered in Commvault's library database. All tape drives have now been cleaned.
- The Commvault software was not handling VMware virtual machine backups correctly. We implemented a temporary workaround; it is anticipated that a Commvault software update will resolve the problem more permanently.
- The Extreme Network's GTAC switch backups were giving warning alerts. We are investigating the problem with the vendor.
- Deployed MATLAB 2021a across the ship and uninstalled prior versions.

HSE Activities

- Safety shower and eye wash stations were tested.
- An abandon ship drill and a fire drill were conducted.