A Scientific Ocean Drilling Coordination Office for the US Community FY26 Q1 Operations and Management Report

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TEXAS A&M UNIVERSITY

SODCO

75 YEARS OF DISCOVERY
LAMONT-DOHERTY EARTH OBSERVATORY
COLUMBIA UNIVERSITY

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1. Introduction

Texas A&M University (TAMU) and Lamont-Doherty Earth Observatory at Columbia University (LDEO) collaboratively form the U.S. National Science Foundation (NSF) Scientific Ocean Drilling Coordination Office (SODCO) to facilitate US Scientific Ocean Drilling (US SciOD) goals. TAMU assists principal investigators with creating drilling proposals; identifies suitable drilling platforms, coring, and logging tools; works with the scientific community to advance new technologies; and plans and implements expeditions. LDEO provides research community support services for successful planning and execution of expeditions, including pre-drilling activities, planning and training workshops, and science communications and outreach. Scripps Institution of Oceanography provides a Site Survey Data Bank (SSDB) for proposal acoustic and related site characterization data.

2. Management and Administration

The SODCO branches at TAMU and LDEO act as a fully integrated team. The SODCO Executive Team comprises the SODCO Director, the Director of Science Operations, and the Director of Science Services:

- SODCO Director (TAMU): provides overall project coordination and supervision of project personnel at TAMU and acts as the interface with other TAMU-provided services (general Information Technology [IT], Publications, Sponsored Research Services [SRS], and Gulf Coast Repository [GCR]).
- Director of Science Operations (TAMU): oversees day-to-day activities of operations, engineering, science, permitting and clearances, and a technical team.
- Director of Science Services (LDEO): manages community science planning, including pre-drilling and training activities; oversees science communications; and supervises the staff at LDEO.

Hiring efforts for SODCO continued with the progress reported below. The Directors at TAMU and LDEO meet weekly to track issues and updates. In addition, the directors meet with the Chair of the SODCO Advisory Board (SAB) on a biweekly basis (see below).

The Directors of Science Operations and Science Services attended the Magellan[3] and U.S. Science Support Program (USSSP) sponsored scientific drilling workshop i-CREATE in Edinburgh, UK, at the end of April. They presented an overview of SODCO and US funding opportunities and met with members of the IODP[3] European Science Operator at the British Geological Survey.

SODCO hosted the first SAB meeting at Texas A&M University 9–11 March. More detail is provided below under Advisory structure.

3. Advisory structure

The SODCO advisory structure includes the central SAB and a series of working groups, advisory committees, and panels:

- SAB Staffing Subcommittee
- SAB Science Communications Subcommittee
- SAB Workshops Subcommittee
- SAB Science and Technology Subcommittee
- SODCO Safety and Environment Panel (SSEP)

The first SAB Meeting was held 9–11 March at the Scientific Ocean Drilling building on the Texas A&M campus. In addition to the SAB, the meeting was attended by the S3P NSF Program Directors, Karen Stocks of the SSDB, the US Co-Chair of the Scientific Drilling Forum, and staff members of the SODCO and Gulf Coast Repository. The full agenda and consensus/action items are posted on the SODCO website. The next SAB Meeting is scheduled for 25–27 August in New York City at the American Museum of Natural History.

Between February and mid-April, the SAB Staffing Subcommittee reviewed science team applications from US-based scientists for three upcoming IODP^3 expeditions: 504S (17 applications), 505S (6 applications), and 506S (16 applications). The "S" signifies that these are Scientific Projects using Ocean Drilling Archives (or SPARCs). For each SPARC, subcommittee members completed individual reviews, participated in an online review discussion, and developed consensus staffing recommendations for IODP^3 and expedition Co-Chiefs. SODCO communicated with IODP^3 to provide staffing recommendations, as well as feedback on the IODP^3 application and review process.

4. Science operations

Operations and Engineering

The Operations and Engineering group consists of a Supervisor, two Operations Engineers, and one Staff Engineer. The final open position, a Staff Engineer, will be hired this year.

This group continues to explore information on vessels, platforms, tools, and other technology that are available on the market. Two employees attended the MINEXCHANGE conference in Salt Lake City in February to learn about mining drill rigs and technology.

In preparation for NSF accepting drilling proposals, cruise operations documents were created that will be submitted as supplementary documentation to NSF along with the proposal. SODCO hosted a webinar on 20 February explaining the process for working with the SODCO operations staff on drilling proposals and the documents needed for NSF proposal submissions. A link to the webinar recording is on the SODCO website

The Operations and Engineering group began meeting with principal investigators of proposals to discuss operational needs and to estimate drilling plans.

Technical Support

The Technical Support group comprises a Supervisor, a Senior Technician, a Chemistry Technician, an Electronics Instrumentation Specialist, and a Mobilization and Logistics Coordinator. An offer has been made to an applicant for the Chemistry Technician and hiring will be completed in Q2.

Customized seagoing containers will provide critical instrumentation and support for at-sea data collection, and laboratory facilities at the GCR will be available for shore-based description and measurements. TAMU finalized the statement of work and contract with the vendor for construction of the containers and issued the purchase order. TAMU is now in the process of reviewing drawings for each container. The electrical hookups for the containers are complete, and installation of required fire extinguishers is in progress.

The technical team has been leading a group composed of SODCO and GCR staff to create a data management plan for at sea operations.

Science Support

Two Expedition Project Managers (EPMs) make up the Science Support group at TAMU. The EPMs participated in SODCO website requirements and SODCO communications meetings and have been developing web content for the full SODCO site. The EPMs are part of the team meeting with drilling proponents.

Both EPMs were involved in the SODCO-TAMU Internship application and interview process. The EPMs are mentoring the two SODCO-TAMU interns this summer and have started meeting with the interns to discuss their research projects. The interns will start at Texas A&M the week of June 1.

Information Technology

The TAMU SODCO IT team, consisting of an applications developer and an IT specialist, is actively contributing to internal projects, such as mobile container IT requirements, SODCO and GCR data management, new software development projects, and supporting SODCO onshore IT needs.

5. Science Services

The SODCO Science Officer position description was posted in February. A preliminary review of applications has been undertaken, but the position will remain open until filled. Interviews and hiring will be carried out in the spring/summer of 2026.

Communications

SODCO took over responsibility for email communications about US scientific ocean drilling from USSSP beginning on 1 March and has subsequently developed and circulated a biweekly Community Update as well as event/opportunity-specific emails.

All existing social media channels were updated to reflect the new social media identity, “US Scientific Ocean Drilling” or “US SciOD,” in February. New social media accounts with the US SciOD identity were created on two additional platforms (Bluesky social and LinkedIn).

Workshops and training

SODCO received requests for supplementary workshop support for two non-SODCO sponsored workshops. These requests came from US PIs seeking travel support for a small group of US scientists to participate in drilling-related activities that are not directly sponsored by SODCO. The first request, for three scientists to participate in the IODP^3 Core2Core (C2C) Symposium on past warm climate research at the University of Graz, Austria on March 8–11, 2026, was reviewed by the Director of Science Services and two SAB members. Travel support was recommended for and provided to the lead PI to attend this workshop. A second request was received at the end of Q1 for participation in the Magellan^3 Workshop, MANI IN PASTA, and will be similarly reviewed in Q2.

The European Petrophysics Consortium contacted SODCO to discuss the possibility of SODCO providing travel grants to US participants in the upcoming ECORD Summer School: Downhole Logging for Marine Geoscience (8–14 August; University of Leicester, UK). SODCO agreed to provide travel grants for up to five US-based participants, to be selected by summer school organizers early in Q2 with input from SODCO. SODCO was also invited to give a remote presentation introducing SODCO at the summer school.

Outreach

SODCO-TAMU staff members, along with GCR staff, participated in the Klein ISD Girls in STEM event.

SODCO-LDEO staff participated in the American Museum of Natural History (AMNH)'s EarthFest event (18 April), staffing a scientific ocean drilling booth and interactive exhibit for families and visitors. LDEO staff also participated in a NEST+m Earth Day event in New York City on 24 April.

Subawards

Subawards to AMNH and the SAB Chair (University of Texas [UT] in Austin) were finalized during this quarter. Subawards to the U.S. Scientific Drilling Forum Co-Chair (University of Rhode Island), IODP^3 Expedition 502 US Co-Chief Scientist (TAMU), and IODP^3 Expedition 502E US Co-Chiefs (Cornell University, UT-Austin/Bureau of Economic Geology) are near finalization.

6. SODCO website

SODCO continued to provide new information about community resources and opportunities on the preliminary SODCO.org website. SODCO staff continued their engagement with C&G Partners on the development work on the full version of the website. LDEO personnel met with C&G Partners and development team to review site needs, organization, content and design.

7. Data services

Site Survey Data Bank

During this quarter, work continued on upgrading the SSDB system to a modern, supported infrastructure. The development environment was migrated from the now-unsupported CentOS 7 operating system to Rocky Linux 9 to meet cybersecurity compliance requirements. As with all software changes, updates were tested as part of deployment. (Under separate funding from the IODP Science Support Office award, which remains in no-cost extension, other routine patching and system maintenance were also performed on the two servers supporting both the www.iodp.org website and SSDB.)

We also evaluated framework options for the system, selected Laravel PHP as the best fit, and began migrating SSDB into Laravel. As an older system, SSDB is largely hand coded. Laravel provides a modern, structured framework for building and maintaining database-driven web applications, including tools for security, database interaction, testing, and workflow management. Adopting Laravel for SSDB will improve long-term maintainability and security, reduce reliance on legacy custom code, and make future development and updates easier and more sustainable.

LogDB

The Lamont LogDB was updated in Q1 to include all downhole logging data from IODP^3-NSF Joint Expedition 501. Discussions began with IODP^3 entities (EPC and JAMSTEC/MarE3) about the possibility of LogDB handling and serving future IODP^3 expedition logging data.

8. Financials

This quarter, all spending on SODCO Year 1 accounts was completed, and with NSF approval, the balance from Year 1 was carried forward to the Year 2 accounts. The contract for the mobile laboratory containers was negotiated and finalized in late March. The initial payment of $504K, due when the

agreement was signed by both parties, was made in April. The final cost of the containers was substantially higher than estimated in the SODCO proposal. This cost difference was covered from remaining Year 1 salary funds, which were unspent due to typical startup delays in hiring project personnel.

Subaward invoices are being received and approved for payment. The SODCO Director's office reviewed and approved subawards to UT, AMNH, and TAMU. An additional award to UT is currently under review.

9. Publications

Articles and abstracts published during this quarter authored by SODCO staff include the following. Bold type indicates SODCO staff.

Articles authored by SODCO staff

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