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JOI JOINT OCEANOGRAPHIC INSTITUTIONS NEWS

SEPTEMBER 2007



FACING CHALLENGING TIMES

Steve Bohlen, JOI president

The challenging times I mentioned in my [spring message](#) are here. In this update, I'd like to tell you how we're facing them. There is good news and bad news to report. While some challenges are due to changing realities in the world of funding for scientific research, including the U.S. National Science Foundation (NSF), other challenges arise from events over which we have no control.

Ocean Observing

In "Ocean Observing Contracts Awarded," please read more about two multimillion-dollar contracts for the [Ocean Observatories Initiative](#) (OOI), an effort to establish a network of interactive, globally distributed sensors in the ocean.

Scientific Ocean Drilling

[ECORD](#) has made the difficult decision to postpone the [New Jersey Shallow Shelf expedition](#) until 2008. Prior to contract work for the Integrated Ocean Drilling Program, the original vessel sustained serious damage. This setback plus the long transit from the Gulf of Mexico delayed the availability of the platform for IODP. Pushing expedition dates further into the fall meant putting crew into dangerous weather.

The United States Implementing Organization (USIO) is developing a re

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UPCOMING EVENTS

joiscience.org/event

Ninth International Conference on Paleoceanography

Sept. 1-9, 2007, Shanghai, China

IODP Expedition 304/305 2nd Post-Expedition Meeting

Sept. 17-21, 2007, Hilo, HI

IODP Expedition 314 (NanTroSEIZE LWD Transect) begins

Sept. 21, 2007, Shingu, Japan

Oceans 2007 MTS/IEEE Conference

Sept. 29 – Oct. 4, 2007, Vancouver, Canada

Sea Level Workshop

Oct. 8-10, 2007, Salt Lake City, UT

North Pacific Marine Science Organization (PICES) Annual Meeting

Oct. 26 – Nov. 5, 2007, Victoria, Canada

2007 Geological Society of America Annual Meeting & Exposition

Oct. 28-31, 2007, Denver, CO

Interim Observatory Steering Committee Meeting for OOI

Nov. 5-6, 2007, Washington, DC

Consortium for Ocean Leadership Board Members and Trustees Meeting

Nov. 7-8, 2007, Washington, DC

IODP Expedition 310 2nd Post-Expedition Meeting

Nov. 12-16, 2007, Tahiti

Ocean Observatories Initiative Preliminary Design Review

Dec. 4-7, 2007, Arlington, VA

2007 American Geophysical Union Fall Meeting

Dec. 10-14, 2007, San Francisco, CA

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vised *JOIDES Resolution* [expedition schedule](#). The Operations Task Force recently discussed a strong preference for moving [NanTroSEIZE – Subduction Inputs/ Kumano Basin](#) to a later date on the USIO schedule. For two primary reasons there is simply not enough time to conduct the expedition as the new *JOIDES Resolution*'s first expedition. First, the ship is scheduled to be ready for IODP in February 2008. Second, Japanese fishing unions prohibit operations in this area March 1 through May 31. Another possible scenario includes completion of this program by the Center for Deep Earth Exploration (CDEX) on the *Chikyu*.

Most likely, the first post-SODV expedition will be Equatorial Pacific I beginning in March 2008 so as to align future expeditions with appropriate weather windows. We will provide an update once final decisions are made.

Vessel Update

The [SODV \(Scientific Ocean Drilling Vessel\)](#) project underwent a management review by an NSF panel in July, and work continues on schedule. Demolition work is complete and the new deckhouse for quarters

and labs is well under construction. The *JOIDES Resolution* came out of dry dock in August and is now back pier side. Shipyard work is scheduled for completion by the end of

December. Following load out, science equipment testing and transit to the first port call, the ship will be expedition-ready in February.



The research vessel JOIDES Resolution, shown here in its final days in dry dock, will be expedition-ready in Feb. 2008 with state-of-the-art upgrades to science facilities. K. Kuroki © IODP

The Future at JOI

In “Oceanographic Research Organizations Join Forces,” please read about the new Consortium for Ocean Leadership, and our merger with the Consortium for Oceanographic Research and Education.

Lastly, you may have already noticed the new and improved JOI Web site (joiscience.org). It's been four years since our site went through a major redesign, so last year we started plans to organize our content in more thematic and easy to find ways. The upgrade to new technology and a content management system means that we have a more streamlined platform on which to build Ocean Leadership's site. ●

NEW U.S. SCIENCE SUPPORT PROGRAM COOPERATIVE AGREEMENT

JOI has finalized the U.S. Science Support Program (USSSP) 2007-2013 budget for the Integrated Ocean Drilling Program (IODP). Full information regarding the cooperative agreement can be found at joiscience.org/usssp.

JOI and IODP currently face a tough financial situation. USSSP's new budget is no exception and will no longer support

instrument development and undergraduate research awards; supplemental science support funding was also reduced. In accordance with plans to streamline the IODP Science Advisory Structure, beginning in 2008, USSSP anticipates supporting fewer members on each panel and committee.

Despite these challenges, JOI – with extensive consultation and guidance from the U.S.

Advisory Committee for Scientific Ocean Drilling (USAC) – was able to minimize the impact of these cuts on the program. USSSP will continue to support the full complement of U.S. scientists aboard each IODP expedition and will continue to provide salary for each participating scientist for a period of 1.5n, where n is the allotted expedition time. Each participating scientist will be eligible for a portion of over \$100,000 available for science support after each expedition. USSSP will also continue to fund travel to and from the platform for the U.S. science party as well as one pre-expedition meeting and two post-expedition meetings.

USSSP will continue to support the Distinguished Lecturer Series, Schlanger graduate fellows, planning workshops and education coordination activities.

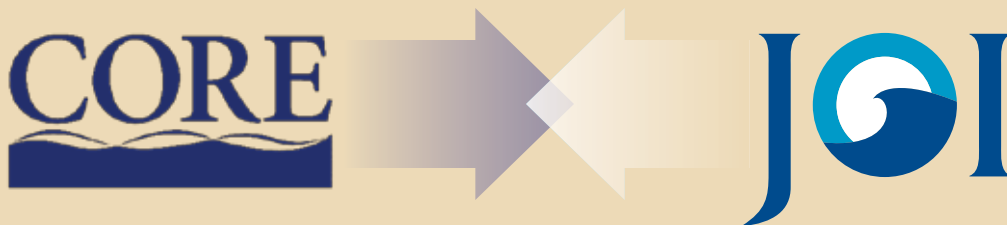
USAC met July 16-19 to discuss several important topics including the implementation of the cooperative agreement and development of advocacy strategies for getting information about the importance of scientific ocean drilling out to broader audiences. See the [USSSP Web page](#) for a summary of the meeting from USAC Chair Christina Ravelo. ●



USSSP will continue to support education coordination activities like School of Rock 2007.

OCEANOGRAPHIC RESEARCH ORGANIZATIONS JOIN FORCES

The Consortium for Oceanographic Research and Education (CORE) and the Joint Oceanographic Institutions (JOI) are merging into a new organization called the Consortium for Ocean Leadership. Ocean Leadership will be the unified voice for ocean researchers and educators and serve as the prime point of contact between the ocean science community and the U.S. federal government. The organization's program managers, system engineers, policy experts and educators will continue to manage ocean research and education programs while advocating for sound policies and



While the merger has legally occurred, JOI and CORE will continue operating for the coming months as separate business lines within the Consortium for Ocean Leadership.

federal investment in ocean research and education.

While the merger has legally taken effect, for the next several months, JOI and CORE will continue to manage programs with the highest

level of commitment as separate business divisions within the new, merged organization. The public launch of the new organization is expected to occur early next year. For more details, go to oceanleadership.org. ●

STAFF SPOTLIGHT



2006-2007 JOI Interns

JOI Interns Karinna Sjo-Gaber and Jessica Sharoff ended their yearlong positions earlier this summer. Sjo-Gaber, a graduate of Brown University, worked with JOI communications helping convey the importance of JOI's research programs to the public. As part of *JOI Learning*, Sharoff, a graduate of Cornell University, created educational materials to attract and involve younger audiences. Together, the interns served as Education and Outreach Specialists on a WHOI (Woods Hole Oceanographic Institution) research expedition. They assisted with science operations and created their own education website: *MISSION 15 51* joiscience.org/mission1551. They look forward to continuing their careers in science and both aim to attend graduate school in the following years.



TEACHER AT SEA: EXPEDITION TO THE INDIAN OCEAN

JOI Learning sponsored middle school math teacher Rory Wilson from Meeker, Colorado to be a Teacher At Sea participating in Will Sager's site survey expedition exploring the 90 East Ridge in the Indian Ocean aboard the *R/V Roger Revelle* from June 18 to August 6. Mr. Wilson was selected after a competitive process, in which he made a big impression with his eagerness to involve students in all steps of the Teacher At Sea process. While at sea, Mr. Wilson chronicled his adventures and encouraged participation through his interactive Web site joilearning.org/sea90e, which features daily blog entries, photos, science challenges, contests, questions and facts about life at sea. He beamed live via the Web into events at Sea Camp in Galveston, Texas and interacted with schools in Colorado, various other parts of the U.S., Thailand, India, Australia and Europe. His innovative and high-tech approach to being a Teacher At Sea has set an excellent model for future teacher research experiences. ●

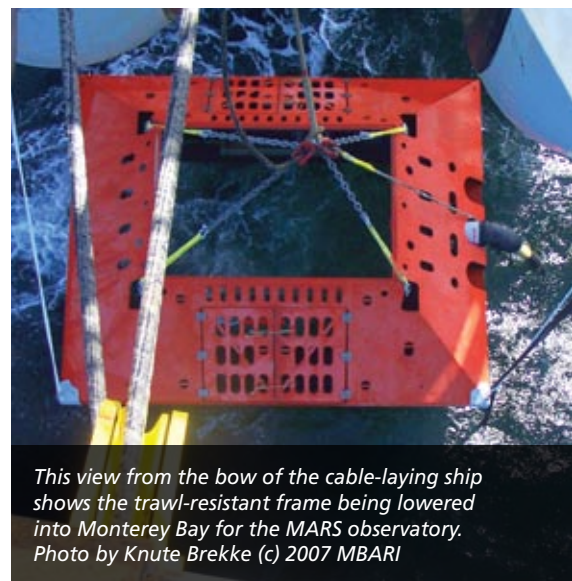
OCEAN OBSERVING CONTRACTS AWARDED

In May 2007, JOI announced two multimillion-dollar contracts awarded to the University of California, San Diego (UCSD) and the University of Washington to support the development and operations for the [Ocean Observatories Initiative \(OOI\)](#). The OOI is a U.S. National Science Foundation investment to advance scientific understanding of the oceans, transforming research by establishing a network of interactive, globally distributed sensors in the ocean.

With NSF support, identified in the agency's FY2007 and FY2008 budget, the OOI will construct a networked infrastructure of science-driven sensor systems to measure the physical, chemical, geological and biological variables in the ocean and seafloor. The transformative OOI will provide continuous, interactive access to the ocean for oceanographic research and education communities. The OOI's observatory elements will address science questions on coastal, regional, and global scales, linked by a common instrument, infrastructure, and information management system.

The award to UCSD is for the computer architecture or cyberinfrastructure portion of the OOI. Scripps Institution of Oceanography will lead the project while the UCSD division of the California Institute for Telecommunications and Information Technology (Calit2) will manage it and, together with Scripps and the San Diego Supercomputer Center, will build much of the cyberinfrastructure. The initial 6-year award is for \$29 million, and total funding may reach more than \$42 million over the course of the planned 11-year project.

University of Washington was selected to develop the regional-scale nodes component of the OOI, to construct a cabled underwater research facility off the Oregon and Washington coastlines. The first year phase will focus on detailed engineering specifications to extend high-speed Internet throughout the deep oceans. This underwater research facility will be the world's first sensor network to span a tectonic plate. ●



This view from the bow of the cable-laying ship shows the trawl-resistant frame being lowered into Monterey Bay for the MARS observatory. Photo by Knute Brekke (c) 2007 MBARI

RIPPLES

SCIENCE AND ENGINEERING WORKSHOPS

JOI programs sponsored three workshops in July.

Profiling technology is essential to the Ocean Observatories Initiative (OOI) infrastructure and the OOI Conceptual Network Design calls for highly capable cabled and un-cabled profiling moorings in coastal, deep-water, and remote high-latitude environments. The workshop was a unique opportunity for collaboration among researchers, engineers, and representatives from industry.

At the Gas-Hydrate Observatories Workshop scientists and engineers discussed possible designs and deployment strategies, to be successfully implemented within the next several years, to monitor gas-hydrate deposits using instrumented boreholes.

Eighty participants from 16 countries gathered in Northern Ireland for the Large Igneous Provinces (LIPs) Workshop, co-sponsored with IODP-MI. Workshop participants established a roadmap for addressing major LIPs questions, including environmental impact and climate change, and mantle geodynamics, via ocean drilling.

Detailed workshop reports will be available on the JOI Web site.

LEGISLATIVE UPDATE FROM CORE

Before its August recess, Congress began important work on the annual appropriations bills and climate change and energy policies. The House energy bill contains a variety of ocean programs and climate change research requirements including "global measurements, establishing world-wide to regional-scale observations" and "studies of historical changes in the Earth system, using evidence from the geological and fossil record."

The House and Senate FY2008 science spending bills keep NSF on its doubling funding path. The Senate supports programs in cyberinfrastructure, engineering, mathematics and the computing and physical sciences. The Senate bill also provides an additional \$18.4 million for research into the complex

dynamics that control and regulate marine ecosystems; the response of coastal ecosystems to extreme and abrupt events; and the development of new sensors to improve ocean observations.

OCEAN OBSERVING UPDATE

The interim Observatory Steering Committee, which advises JOI on its Ocean Observatories Initiative (OOI) related activities, met in June to review activities and planning since the committee's last regular meeting in January 2007. Major meeting goals were to achieve a better understanding of the requirements for the OOI's Preliminary Design Review in December, to develop guiding principles for the Preliminary Network Design, and to provide JOI with specific advice on elements of the OOI Network. An executive summary of the meeting, and a summary of the committee's recommendations, are posted on the [Ocean Observing section of the JOI Web site](#).

PARTNERING WITH MS PHD'S

Partnering with the MS PHD'S (Minorities Striving and Pursuing Higher Degrees of Success in Earth System Science) Professional Development Program, JOI supported five students to attend IODP's Science Steering and Evaluation Panel in Houston. Through mentoring from panel members, the students gained an inside look at the proposal process for a large-scale science program and had the opportunity to meet and discuss science issues with international colleagues. One student commented, "One of the most valuable things I learned from this experience is the do's and don'ts in writing proposals, and how a submitter should have a strong objective, with strong scientific data to support it."

BEYOND ACADEMIA

Taking research beyond the laboratory, the 2006-2007 Schlanger Ocean Drilling Fellows visited Washington, DC to speak with national policymakers and program

managers. Following a short symposium at JOI focusing on their discoveries, the Fellows toured the U.S. Capitol and met with Congressional Research Service staff to discuss how science contributes to public policy. A second symposium, held at NSF, introduced the students to the ins-and-outs of successful proposal writing and program management at national agencies. A private tour of the Smithsonian's National Museum of Natural History capped off the event.

The next Schlanger Ocean Drilling Fellowship Program application deadline is Nov. 15, 2007, joiscience.org/usssp/schlanger.

JOI LEARNING

JOI Learning sponsored the 2007 School of Rock workshop July 22-28 at the Gulf Coast Repository in College Station, TX. Seventeen teachers from around the country immersed themselves in scientific ocean drilling by working with scientists and delving into cores to develop new classroom activities.

In June, *JOI Learning* participated in three separate workshops. School of Rock graduate Debbie Faulkner and JOI Assistant Education Director Sharon Cooper taught two half-day sessions of the Virginia Content Academy at James Madison University for more than 50 teachers. The sessions focused on hands-on laboratory exercises and JOI classroom activities connected to its educational poster series.

Kristen St. John and Mark Leckie led a three-day workshop at Grand Valley State University June 26 - 28. This workshop included basic core description techniques and what oxygen isotopes and biostratigraphy of core sediment layers can tell us about Earth's past. School of Rock graduate Mary Whaley also collaborated in a workshop with Centers for Ocean Sciences Education Excellence (COSEE) Southeast. ●



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Workshop Proposal Deadline Approaching

JOI is currently accepting workshop proposals submitted to the U.S. Science Support Program (USSSP) associated with the Integrated Ocean Drilling Program. Submission deadline is October 1, 2007.

Proposed workshops should promote the development of new ideas to study Earth's processes and history via scientific ocean drilling. The primary goal of the workshop program is to identify promising new scientific objectives and research opportunities. USSSP seeks to expand its long-standing sponsorship of workshops in ocean sciences, marine geology and geophysics, and paleoclimatology to related disciplines by encouraging broad-based scientific community involvement. Co-sponsorship of workshops by related programs and the active participation of graduate students are strongly encouraged.

More information: joiscience.org/ussp/workshops.

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Soon, brief updates about the drill ship, status of the Ocean Observatories Initiative, U.S. Science Support, *JOI Learning*, etc, can be sent directly to you electronically, based on your interests. Please ensure your contact information is accurate and up to date.

We've redesigned our print newsletter!

Because JOI has begun utilizing the power of the Web to communicate news and content about ocean research and education programs, the print newsletter is now much shorter, more reader-friendly and covers all of JOI's activities. Now you will find news and updates from ocean observatories to scientific ocean drilling, and everything in between, in one place. And expanded coverage is developing every day on our Web site. We hope you find it an improvement, and enjoy.

JOI News is issued by Joint Oceanographic Institutions (JOI) and is available free of charge.

JOI is a consortium of oceanographic research institutions that advances global understanding of the Earth and its oceans through excellence in program management. The U.S. National Science Foundation provides funding for JOI's ocean research and education programs.

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