Information Letter #16

TO: Faculty and Staff of:
Department of Atmospheric Sciences
Department of Geology & Geophysics
Department of Geography
Department of Oceanography
Geochemical and Environmental Research Group
Integrated Ocean Drilling Program
Texas Sea Grant Office

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IODP/TAMU Leadership Transitions and Challenges

On June 18, Mitch Malone was named Acting Director of Science Operations at the Integrated Ocean Drilling Program (IODP). Mitch is charged with managing the Transition Phase followed by the Interim Phase of the drilling program. I have great confidence in Mitch's ability to make this transition a successful one.

At this time the present challenges facing IODP are to complete the refurbishment of the R/V *Joides Resolution* Scientific Ocean Drilling Vessel (SODV) successfully; resume ocean drilling operations in Canterbury Basin by mid November, followed by Wilkes Land, and engage commercial partners to use the *JOIDES Resolution* for at least 3 months per year as a means of cost-avoidance. It is a daunting time ahead, but our new team will lead the way.

To support Mitch, a Transition Leadership Team is now in place. It consists of Ethan Grossman - Acting Deputy Director of Science Operations; Ann Klaus - Deputy Director of Data Services; and Jay Miller - Acting SODV Project Manager. The team will work closely with the US Implementing Organization (USIO) Alliance partners. USIO Alliance representatives Sean Higgins and David Divins with Ocean Leadership, and Dave Goldberg with LDEO/Columbia University, have been in College Station on a rotating basis since mid June to help with the transition. The team has been working closely with Jack Baldauf in his role as resource consultant and Bill Wasson, Vice President for Special Programs at the Texas A&M Research Foundation (TAMRF). Guy Bear, TAMRF manager in Singapore, provides the primary interface to Overseas Drilling Ltd. which manages the SODV on behalf of its owners, Transocean and Norwegian investors.

Starting August 1, Steven Bohlen will serve as Interim Director of IODP Science Operations to fulfill the charge to develop a new vision and structure for the program in preparation for renewal of the IODP contract in 2013. He will work closely with the USIO Alliance partners and the drilling community to build academic bridges and position IODP/TAMU to take advantage of current and future research opportunities in climate change, sea-level rise, energy security and other relevant national issues, as he begins to formulate plans for ocean science drilling beyond 2013.

Before implementation, these transition changes were vetted with the USIO Alliance partners (Consortium for Ocean Leadership and LDEO/Columbia), submitted to the National Science Foundation, and

approved and supported by the Provost and President of Texas A&M University. This fall, Texas A&M University will advertise internationally for a new permanent Director of Science Operations of IODP with the intent of filling the position by 31 May 2009.

On behalf of Texas A&M and the scientific ocean drilling community, I would like to express sincere thanks to Jeff Fox and Jack Baldauf for their many years of service to IODP.

Science Systems for *JOIDES Resolution* Passes Tests with Flying Colors

On behalf of the Consortium for Ocean Leadership, a committee of scientists from numerous institutions conducted a "Test Drive" of the Laboratory Information Management System (LIMS) and several analytical systems for the NSF-funded Scientific Ocean Drilling Vessel (SODV) refit of the *Joides Resolution* in June at 1000 Discovery Drive. Eleven external committee members, along with two committee support members, represented a wealth of experience in scientific ocean drilling over decades of time.

"We found the capabilities presented in the science system computing infrastructure and the specific analytical systems we were able to review truly exciting. The systems we tested represent advances in fundamental components of the shipboard science capabilities, including petrophysics track systems, core description capabilities, uploading of chemistry data, and an integrated database structure unifying the shipboard science environment. The science systems integrate treatment of the core from its acquisition to its palleting for shipment. Equally important, the physical environment of the JR is now nearly completely transformed into an entirely new integrated laboratory and quarters structure, replacing an ostensibly temporary "laboratory stack." Taken together, the science system and physical improvements result in a quantum leap in shipboard science capabilities, resulting in a truly transformative science environment."

"The entirety of the lithology of the hole drilled is the dominant conceptual framework, moving beyond the traditional core/section limitation and making scientific ocean drilling as much as possible like working on an outcrop. The graphic capabilities, including an integrated range of applications—from quick visualization of data to production of publication-ready graphics—will promote data fusion. In the computer gaming world, a major marker of design success is unanticipated behaviors by users emerging in the gaming environment, as a result of the richness of the environment presented. The combination of the integrated scientific data base for expedition data as they are obtained and flexible graphics capabilities should result in such emergent behavior in scientific interpretation shipboard to be reflected in the cruise expedition reports in the Proceedings of the Integrated Ocean Drilling Program. These are major conceptual advances whose impact on the peer-reviewed literature resulting from JR expeditions cannot be fully anticipated. Although we provide a number of recommendations for each system tested, we emphasize that we found no major problems."

The committee consisted of Peggy Delaney, Chair, University of California, Santa Cruz; Steve Hovan, Indiana University of Pennsylvania; Barbara John, University of Wyoming; Miriam Katz, Rensselaer Polytechnic Institution; Mitch Lyle, Texas A&M University; Joseph D. Ortiz, Kent State University; David Smith, University of Rhode Island; Jonathan E. Snow, University of Houston; Michael Underwood, University of Missouri; Roy Wilkens, University of Hawaii; Woody Wise, Florida State University. Committee Support Members: Sean Higgins, Ocean Leadership/USIO; Gerardo Iturrino. LDEO/USIO.

Faculty Breakfast Scheduled for 22 August

The Fall Faculty Breakfast for the College of Geosciences will be held at 8 a.m. Friday, 22 August, in Room 292 of the MSC. We will welcome Assistant Professor of Oceanography John Kessler and Assistant Professor of Geology & Geophysics Robert Weiss as new faculty members. Other faculty and staff transitions and achievements will be recognized.

Academic Convocation & Murano Investiture Set for 12 September

All faculty are encouraged to participate in the Texas A&M University annual Academic Convocation on 12 September. The investiture of Elsa A. Murano as the 23rd president of Texas A&M University will be held at this same time. The academic procession to Convocation will step-off from the Cushing Library at 9:45 a.m., with the Convocation beginning at 10 a.m. in Rudder Auditorium. Please mark your calendars and plan to attend this occasion in the life of the University. Additional information is available online at http://www.tamu.edu/convocation/.

Teachers Experience IODP School of Rock

Sixteen teachers from across the country spent eight days in College Station in July at the annual School of Rock workshop at IODP's Repository. Coming from as far away as Alaska and Maine, these teachers learned how cores of rock and sediments from the floor of the world's oceans can shed light on climate change cycles of the past. They were mentored and taught by scientists actively engaged in IODP research. Staff from the Consortium for Ocean Leadership led the workshop with scientists from James Madison University in Virginia, LDEO/Columbia University, University of Massachusetts-Amherst, and Texas A&M. Participating from the College were Debbie Thomas, John Firth, Jörg Geldmacher, Jay Miller, Katerina Petronotis, and Scott Slough. This is the second year that IODP has hosted the School of Rock at the Repository. The inaugural School of Rock took place in 2005 onboard the R/V *JOIDES Resolution*.

Geology & Geophysics Department Launches G-Camp

Thirty 4th-12th grade science teachers from around Texas spent 14 days in July traveling through Texas, New Mexico, and Colorado while attending G-Camp, a new outreach program for the Department of Geology & Geophysics. G-Camp took teachers on a two-week geology field trip to study significant geological features. *G-Camp for Teachers* is the first phase of the program. Phase 2 will be added next summer, when the field trip will be offered to incoming A&M freshmen as well. Students who attend G-Camp will earn 4 hours of science credit (Geology 101) before their first semester begins at A&M.

The goal of G-Camp is threefold: to increase the geosciences workforce by ensuring quality teaching of the geosciences in grades 4-12, to attract motivated young people to professions in the geosciences, and to provide all students with quality educational opportunities. The program this summer was underwritten by industry partners Halliburton, Chevron, Hess, ConocoPhillips, ExxonMobil, and Baker Atlas Hughes. The only expense for the teachers was the cost of tuition for those who elected to receive three hours of graduate credit. Over 350 teachers applied for the 30 openings. Preference was given to applicants from schools in economically depressed areas of Dallas, Houston and San Antonio.

Leading G-Camp were G&G's Rick Giardino and Jack Vitek, Carolyn Schroeder from the College of Science's Center for Mathematics and Science Education, and BISD fifth grade science teacher Mary Boltezar. G&G graduate assistants Netra Regmi and Kelin Zhuang helped as well. For more information on G-Camp *for Teachers* visit the website at http://web.mac.com/rickgiardino1/G_Camp_/Welcome.html.

Ahr Honored with Outstanding Educator Award

Wayne Ahr, professor of geology and geophysics, was selected by the Gulf Coast Association of Geological Societies to receive its 2008 Outstanding Educator Award. The award recognizes outstanding contributions in the education and training of geologists through teaching, research, and publications. It is designed to honor educators who have made major positive impacts in the lives of Gulf Coast geologists. Wayne was nominated by Carl Steffensen, a former student who is now Senior Geologist for BP America and a member of the Department of Geology & Geophysics Advisory Council. Steffensen collected letters of endorsement from more than a dozen former students and faculty members. Wayne and his students have worked to understand better how oil and other hydrocarbons flow through rock pores and how to find drilling "hotspots" that will yield the biggest returns. His new textbook, *Geology of Carbonate Reservoirs,* will be available in August from John Wiley & Sons.

Geosciences Researchers Earn Advanced Research Program Funding

I would like to congratulate four researchers from our College who were funded under the Norman Hackerman Advanced Research Program (ARP), a competitive reviewed grants program administered by the Texas Higher Education Coordinating Board: Ethan Grossman, Earth Sciences, *Stable Isotopes of Mollusk Shells as Proxies for River Discharge and Hypoxia on the Texas Shelf*, $101,924; Hongxing Liu, Earth Sciences, *Assessment and Prediction of Coastal Erosion and Morphological Changes in the Upper Texas Gulf Coast*, $137,900; Deborah Thomas, Earth Sciences, *The Impact of Orbital Variations of Insolation during Intervals of High Atmospheric CO2*, $137,000; Hongbin Zhan, Earth Sciences, *Is Water Table a 'Material' Free Surface?* $120,000.

Texas A&M ranked third in dollars ($1,564,901) and fourth in proposals funded (13) among the 25 Texas universities and agencies responding to the 2007 program. A total of $16.5 million was awarded to support 121 scientific and engineering research proposals at public higher education institutions across the state. College of Geosciences faculty members received four of the eight awards granted in the Earth Sciences category.

Geosciences to Offer Six First-Year Seminars Fall Semester

It is exciting to see how many of our faculty will be offering first-year seminar courses to new students this fall. In principle, this means that every incoming freshman in the College of Geosciences has the opportunity to participate, which is unique. Six seminars in the geosciences will be offered altogether. These one-credit seminars are open only to first year freshmen and use a learning community setting to focus on a particular research area or topic of current interest.

College faculty will lead the following seminars: Gerald North, two seminars on energy, water and climate change; Andrew Klein and Chuck Kennicutt, exploring Antarctica's past and future; Erik Prout, exploring the geographies of a university town; Luis Cifuentes, the first steps to becoming a global citizen. The sixth geosciences seminar on applications of geospatial technology beyond Google Earth will be led by Evans Library Associate Professor Katherine Weimer and GIS Specialist Miriam Olivares.

The First-Year Seminar program is an initiative of the offices of the Dean of Undergraduate Programs and the Vice-President for Student Affairs. It involves faculty and staff from eight colleges, the library and student affairs teaching more than 30 different seminars. For more information visit http://upas.tamu.edu/firstyearseminars.html.

Facilities Report

O&M

- 12th floor. This major renovation has been completed and ATMO is moving in new furniture. The roar of the rooftop exhaust fans has been quelled, and the space is usable for the first time in decades. The renovated radar room now sports a chroma-key green wall, against which future weather broadcasters can practice television techniques.
- 409. Misplaced paperwork and intervening priorities have held up this renovation. Physical Plant is now on track and expects to begin construction in August. The two student occupants will be re-housed during the project.
- 702. The final scope and costs have been approved. Construction probably will begin in September.
- 714-716. Scope and costs have been received. Work is expected to begin shortly.
- 206-209. Physical Plant presented a cost estimate for renovation to create two teaching labs and a classroom that was twice what was expected. After discussion with OCNG, the College is proceeding with the construction of the new classroom, which will seat 35-40 and is promised to be ready for fall. We will delay renovation of Lab 208 and construction of the new lab until December-January. The second project will be an open bid to contractors, and we expect to realize significant savings by this process.

Halbouty

- 329-333, the Radiogenic Lab. Final adjustments are being completed before the lab goes operational.
- 368A and 370. Final electrical adjustments are being made; cabinet doors are still to be installed.
- The roof replacement is scheduled through September but the project manager thinks it can be done by the end of August, weather permitting. Completion of this job will restore additional parking slots behind Old Halbouty. However, as of now, we understand that five slots will remain assigned to Reed McDonald contractors until their work is done next year. Inside Halbouty, light ballasts are being replaced with more efficient and earth-friendly models. That project will be completed before the fall semester. Both the roof and ballast replacements are at the direction of Physical Plant.

O&M, Teague, and CSA

- Various floors. Security cameras have been installed on the O&M ground floor, basement, loading dock, and in Geography areas in both O&M and the Teague complex. Access to the images is restricted to four staff members. If a theft occurs or if you see someone acting in a suspicious manner, contact Maureen Reap.

New Atmospheric Sciences Website Launched

The College web development team has done a great job designing the new website for the Department of Atmospheric Sciences. The site, located at http://atmo.tamu.edu/, went live in mid July. This site is the third department website redesigned by the team this year. Effort to update and revise the Geology & Geophysics website is now beginning. The home page of ATMO includes photos and links to research being conducted by department faculty and a featured link to a podcast on the Texas Aggie Storm Chasers. It offers one-click access to faculty profiles and department news, as well as information tailored to the needs and interests of prospective, current, and former students. A newly developed database gives faculty the ability to upload their syllabi and other relevant information for classes they teach. The database is linked to “Courses” pages on the website where students can access the information. Any questions, comments, or suggestions about the new ATMO site or any other College website should be directed to Jennifer Rumford at jrumford@tamu.edu.