

---

# NEWSLETTER

WOODS HOLE  
OCEANOGRAPHIC INSTITUTION



September/October 1991

---

## Welcome Home, Knorr!!!

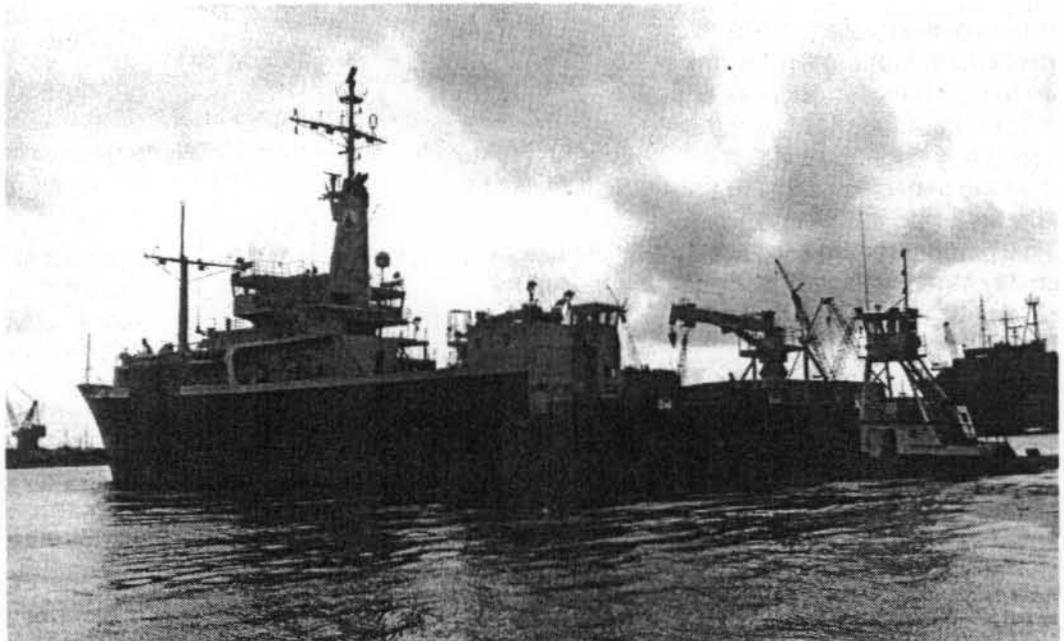
Research Vessel *Knorr*, 34 feet longer with a new propulsion system and many other upgrades, is returning home following a 32-month absence.

Staff, families and friends of the Institution are invited to the welcoming celebration on the dock. As this issue went to press October 9, *Knorr* had just departed McDermott Shipyard in Amelia, Louisiana. The latest information on the arrival date and time is available on the ships' hotline, extension 2122 (outside WHOI: 457-2122).

The long, costly refit and conversion of R/V *Knorr* officially ended October 3 when the Institution signed papers and accepted delivery of the ship from McDermott Shipyard. *Knorr* left Woods Hole February 7, 1989 and entered the shipyard eight days later.

Although the shipyard period has ended, much work remains to be done. Given the magnitude of the refit and the shipyard environment, *Knorr* will not return home in tip-top shape. Similar circumstances occurred when *Atlantis II* was converted to handle *Alvin* in

Photo by Jerry Cotter



*Knorr* at the McDermott Shipyard in May. A new hangar is visible near the stern.

the early 1980's, and when an unpainted *Oceanus* was delivered to WHOI in 1975.

A full Institution crew of 25 recently joined the ship under Captain Mike Palmieri and is already at work returning the ship to WHOI standards.

*Knorr* will remain at the WHOI dock through the end of the year. During the coming months piping, electrical work, ventilation and air-borne noise reduction systems will be completed, along with cosmetic touches like painting and final cleaning before the ship begins major science

programs.

Late in the year a new hydroboom and survey winch will be installed. A recent \$500,000 grant from the Kresge Foundation is providing funds to upgrade scientific equipment, including a traction winch system to handle remotely operated vehicles and a 25,000-foot fiber optic cable.

Although *Knorr* has not yet returned, work ashore has been underway for months. The Carpenter Shop has made and will be installing

*Continued on page 8*

## 1991 JASON Project to Explore Galapagos Islands

Senior Scientist Robert Ballard, founder and Chairman of the JASON Foundation for Education, announced details of the 1991 JASON Project at a news conference September 17 at the Organization of American States in Washington, DC.

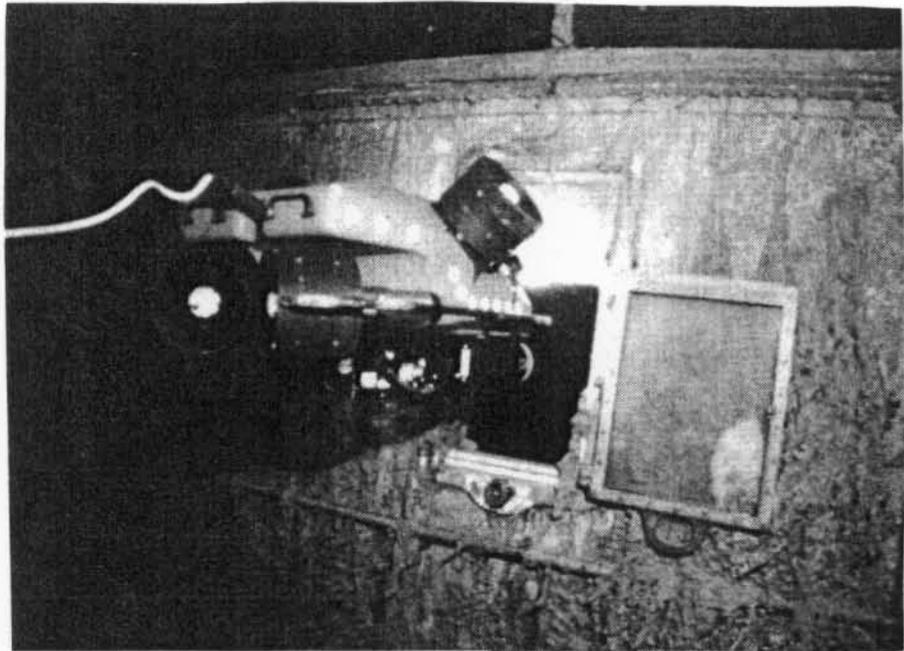
More than 500,000 students in the U.S. and Canada will participate in the third JASON Project to the Galapagos Islands December 2-14, including up to 12,000 students and members of the public at WHOI's Redfield Auditorium. WHOI is one of 20 Primary Interactive Network Sites (PINS) in North America, 18 in the U.S. and two in Canada, which will receive the expedition's 60 live one-hour programs.

Five broadcasts are scheduled each day Monday through Saturday beginning at 10 a.m. EST. The live programs begin at 10 a.m., 11:30 a.m., 1:00 p.m., 2:30 p.m. and 4 p.m. The broadcasts at WHOI are free of charge.

Other New England PINS are the Museum of Science in Boston, New England Science Center in Worcester, University of Rhode Island Graduate School of Oceanography in Narragansett, RI, and The Maritime Center in Norwalk, CT.

This year's expedition offers new features from the previous projects in the Mediterranean Sea in 1989 and Lake Ontario in 1990. Students will be able to see and talk with scientists at six different sites on land and underwater. They will explore an active volcano, learn about the state-of-the-art communications technology making the project possible, and investigate a deep water site with WHOI's remotely operated vehicle *JASON Jr.* Last used to explore the *RMS Titanic* in 1986, *JASON Jr.* will monitor and document fish and other marine life in deeper waters and

© Woods Hole Oceanographic Institution



*JASON Jr.*, photographed from *ALVIN*, peering into the window of the *RMS Titanic's* Room U in 1986. The vehicle's next voyage is in the Galapagos Islands.

explore pillow lava to show how molten rock creates new sea floor.

A marine biologist in a two-way audio helmet will conduct underwater experiments to show students how offshore plants and animals adapt to the unique and isolated environment. The biology and behavior of some of the Galapagos Islands' unique species — flightless comorants, penquins, marine iguanas and giant tortoises — will be examined at the Charles Darwin Research Station and through a mobile team.

Live question and answer sessions will again be included in each program, and students at some of the PINS will have an opportunity to drive *JASON Jr.* remotely. Due to the cost of the *JASON Jr.* pilot program, WHOI will not be offering that feature since it does not charge admission to the programs as do other sites.

A special curriculum prepared by the National Science Teachers Association under a grant from the National Science Foundation has been prepared for grades 4 through 12. More than 100 teachers attended a teacher training session

sponsored by the Education Office at Redfield Auditorium October 5 to learn about the project and how to use the curriculum in their classrooms.

WHOI is offering the broadcasts to schools in Bristol, Plymouth, Barnstable, Dukes and Nantucket counties. Scheduling school classes for the live broadcasts is being handled by the Education Office. Once schools are scheduled, the Public Information Office will offer all remaining seats to the WHOI community and to the public.

In addition to the 60 live broadcasts, National Geographic Society will produce a live one-hour program on the JASON Project to the Galapagos Islands airing December 15 on National Geographic EXPLORER, a weekly cable television series on TBS SuperStation.

Volunteers are needed for special taped evening broadcasts and Saturday programs as well as weekday broadcasts. Please contact Jan Battee, Public Information Office, ext. 3373, if you are interested.

---

## WHOI Technician Aids in Soviet Sub Study

By invitation for the Soviet Government, American and European technical experts joined Soviet scientists and engineers in a recent manned submersible expedition to the sunken Soviet nuclear attack submarine *Komsomolets*. The expedition left Norway within hours of the coup attempt in the Soviet Union and included Bill Lange of WHOI's audio-visual staff.

The Soviet submarine, a member of the MIKE class, sank off the coast of Norway April 7, 1989 as the result of a fire. Initial surveys determined that no radiation was leaking from the ship's nuclear power plant. Forty-two of the 69 crew members died in the accident, including the captain. The ship rests upright at a depth of approximately 1,700 meters (5,600 feet).

The August-September expedition was launched by the Soviets to continue monitoring the site for radiation leakage and to provide a salvage team with engineering data about the submarine and the surrounding seafloor. The Soviets are considering the possibility of raising the *Komsomolets* in 1993 using a

team of Dutch salvage engineers.

The Americans were invited to participate by invitation from Dr. Anatoly Sagalevitch, Director of the Manned Deep Submergence Group of the P.P. Shirshov Institute of Oceanology of the USSR Academy of Sciences, to Craig Dorman. WHOI and the Shirshov Institute have a cooperative agreement, signed in May 1990, which calls for "collaborative scientific programs...in the fields of underwater techniques and their applications."

Bill Lange and Jeff Ledda, a lighting specialist at Deep Sea Systems in Falmouth, provided underwater cameras, lighting, and video processing expertise and *in situ* sampling technology, including sediment coring.

"We consider this cooperative project part of our continuing collaborative agreement with the Shirshov Institute," Dorman explained.

"Through the agreement, we can provide assistance based on our long-standing research and development in deep submergence exploration. In return, the Shirshov offers our scientists access to its research

ships, including its two new manned submersibles, MIR 1 and MIR 2."

The expedition used the Shirshov Institute's Research Vessel *Akademik Mstislav Keldysh* and the two MIRs, and was directed by a Soviet three-star Admiral. It left Hammerfest, Norway, and returned there 15 days later in early September after surveying both the MIKE submarine site and a control site 30 kilometers (19 miles) away. The research included a surface sampling program (dredging, water sampling, deep-towed side-scan surveys, and subbottom profiling) and inspection from the manned submersibles. A total of three dual dives were completed on the site.

The team concluded that the radiation leakage at the site appeared to be minimal, at or just slightly above background levels, and the conditions of the submarine and its surrounding environment are acceptable for salvage operations.

In addition to the two Americans and Soviet scientists and technicians, the team included Dutch engineers, a British radiation expert and a Norwegian observer.

---

## 1991 United Way Campaign Underway

Fall marks the start of the annual United Way Campaign, WHOI's only officially sponsored charitable campaign.

This year's co-chairmen, Shelley

Lauzon and Craig Dorman, have sent a letter to all employees along with pledge forms. However, due to a mailing error, complete information was not included and there have been

some calls regarding where to send the forms. Please direct all questions and send your completed pledge forms to Shelley Lauzon, Public Information Office, Co-op, or call ext. 2270.

### United Way Supports the following agencies on Cape Cod:

*United Way of Cape Cod Inc.*  
*Aids Council, Cape Cod*  
*Alcoholism & Drug Dependence, Inc., Cape Cod Council*  
*Alzheimer's Disease and Related Disorders*  
*American Red Cross*  
*Big Brothers/Big Sisters*  
*Boy Scouts of America*  
*Camp Fire Boys & Girls*  
*Center for Individual and Family Services*  
*Consumer Assistance Council*  
*Family Health of Cape Cod*  
*Girl Scouts, Plymouth Bay Council*

*Independence House*  
*Legal Services for Cape Cod & Islands*  
*Lower Cape Human Services Committee*  
*Martha's Vineyard Boys & Girls Club, Inc.*  
*MSPCC (Mass. Society for Prevention of Cruelty to Children)*  
*Outer Cape Health Services*  
*Association For Retarded Citizens of Cape Cod*  
*Samaritans of Cape Cod*  
*Sight Loss Services Cape Cod & Islands*  
*USO (United Services Organizations)*  
*Visiting Nurse Association of Central & Outer Cape Cod*  
*YMCA of Cape Cod*



**Photos by Lesley Reilly**

# WHOI Summer Picnic



## Annual Summer Picnic Attracted Large Crowd

Several hundred employees, students and their families enjoyed pony rides, games for children and adults, tennis, horseshoes, volleyball, croquet and more at the annual Summer Picnic August 11.

Sunny skies prevailed as the Woods Hole Folk Orchestra entertained the crowd on the Joseph V. McKee Jr, Ball Field behind Clark Lab. Hamburgers, hotdogs, corn on the cob, watermelon, popcorn and drinks were provided by the Institution.

Many helped to make the picnic a great success again this year: Arthur Gaines, Don LeBlanc, Paul Snelgrove, John Stegeman, John Farrington, Peggy and Wayne Dickinson, Dave Olmsted, Jim Broda, Arthur Peterson, Bruce Lancaster, Barbara Wickenden, Maggie Walden, Peggy Stengel and her daughter Amber Radant, Lesley and John Reilly, Fritz Heide and the Graphic Services crew, Victor Fontana, and Building Services personnel Mac McCall, Jay Murphy and Jeff Clemishaw.

Special thanks to the Picnic Committee: Frank Bahr, Gwyneth Hufford, Sandy Murphy, Tracey Crago, Mary Zawoyski, Hovey Clifford, Terry Donoghue, Terrance Howald, Tim Silva, Mike Toner and Dorsey Milot.



## Oceanus Magazine Honored

*Oceanus* Magazine has once again been honored with the Ozzie Award for Design Excellence in two categories.

A Bronze Award for Best Cover, Educational has been awarded to the magazine for its Summer 1990 issue on "Ocean Disposal Reconsidered," which featured artwork by editorial cartoonist Robert Mankoff.

An Honorable Mention Award for Best Special or Single Issue Design, Educational was also awarded to *Oceanus* for the overall design and layout of its Winter 1990/1991 issue, which highlighted Steve Kauffman's photo of the USS *Will Rogers* (SSBN 659), a Polaris missile submarine.

More than 1,600 publications in the United States and Canada were screened, reviewed and evaluated by a panel of award-winning design professionals.

The Ozzie Award for Design Excellence, now in its fifth year, is annually sponsored by *Magazine Design & Production*. Last year *Oceanus* received a Gold Award for Best Redesign, Educational for its Spring 1990 issue entitled "The Med," and a Bronze Award for Best Cover, Educational for its Winter 1989/1990 issue entitled "Pacific Century, Dead Ahead."

The ICOM hand held VHF radio telephone from the Asterias is missing. Anyone with any information please contact Dave Olmsted at ext. 3322.

### Newsletter Notices

Please send information about upcoming events, photo ideas and opportunities, highlights of committee activities and other news you'd like to share with the Oceanographic community to Shelley Lauzon, editor, Co-op, or call ext. 2270.

Photo by Terri Corbett



*Craig Dorman and Phyllis McKee read the plaque dedicating the new ball field at the Quissett Campus to the late Joseph V. McKee, Jr.*

## Joseph V. McKee, Jr. Ball Field Dedicated

More than 200 attended the noon dedication ceremony September 12 of the Joseph V. McKee, Jr. Ball Field behind Clark Laboratory. Mr. McKee's widow, Phyllis, and other family members participated in the ceremony and unveiling of a plaque.

Festivities began with hot dogs and refreshments. Assistant Facilities Manager Ernie Charette served as Master of Ceremonies. Director Craig Dorman noted Joe McKee's long association with WHOI, beginning in 1958 as an Associate, and his many contributions to the Institution. He served as a Member of the Corporation for 19 years, as Vice President of the Associates for 18 years, as a Trustee for 16 years, and as a member of the Quissett Campus Committee, Nominating Committee and as Chairman of the Development Committee.

"This ball field is a fitting memorial to a man who gave so much of his time, energy and financial support. Joe was one of the key people whose efforts helped this Institution grow and flourish during the 60's, 70's and 80's," Craig Dorman noted. "On behalf of the staff, I would like to thank the McKee family for providing us with this re-

markable opportunity to preserve this beautiful space on our campus that will bring people together to share many enjoyable hours. We are honored that you chose our Institution to be the beneficiary of this memorial which celebrates a man who truly made a difference at this Institution."

Joe's son, Casey, spoke on behalf of the family and threw out the first pitch to Craig Dorman to start the Home Run Derby. Lisa DiPalma of IPCL and Rich Galat of Facilities won the contest and were awarded trophies.

The McKee family were presented white baseball caps with the words "Joseph V. McKee, Jr. Ball Field WHOI" by project manager Rich Galat of Facilities. George Grice, Bill McKeon and the Recreation Committee, headed by Hovey Clifford, assisted with the project.

Special thanks to designer and landscape architect Steve Stimson of BSS Design, Grafton Briggs landscapers and Lawrence Lynch Corporation, all of Falmouth, for their assistance in making this new facility such a beautiful place.

## New Faces



Miren J. Canales  
Guest Investigator  
Biology  
Redfield 1-04  
Ext. 3247  
H. Caswell



Maureen C. Dellacroce  
Staff Assistant II  
Biology  
Redfield 1-18  
Ext. 2334  
J. Kleindinst



Henrietta N. Edmonds  
JP Student  
Education/Chemistry  
McLean  
G. Jones



Christopher Edwards  
JP Student  
Education/PO  
Clark 317  
Ext. 2814  
J. Pedlosky



Deana L. Erdner  
JP Student  
Education/Biology  
Redfield 3-42  
D. Anderson



Kurt S. Jilson  
Mess Attendant  
R/V Oceanus  
Marine Operations  
Ext. 2208  
M. Barros



Stein Kaartvedt  
Postdoctoral Fellow  
Biology  
Redfield 2-26  
Ext. 4808  
P. Wiebe



Torvald Kohlin  
Research Assistant II  
Chemistry  
Clark 418  
Ext. 3459  
C. Goyet



Pirjo A. Lindstrom-  
Seppa  
Guest Investigator  
Biology  
Redfield 3-42  
Ext. 4822  
J. Stegeman



Susan P. Merriam  
Senior Accounting  
Assistant  
Controller  
Ext. 2461  
M. Tavares



Michael J. Moore  
Postdoct. Investigator  
Biology  
Redfield 3-42  
Ext. 3228  
J. Stegeman



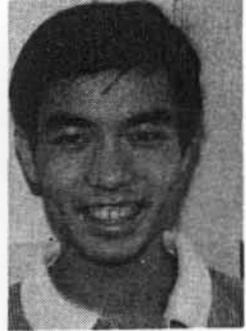
Bingjian Ni  
JP Student  
Education/PO  
MIT 54-1425  
Ext. 883-2437  
G. Flierl



Zhihong Ni  
Guest Investigator  
G&G  
Clark 247  
Ext. 2942  
C. Bowen



Daniel M. Sigman  
JP Student  
Education/G&G  
McLean  
D. McCorkle



Xiaoou Tang  
JP Student  
Education/AOP&E  
Bigelow 405  
Ext. 2659



Edward H. Verry  
Research Engineer  
AOP&E  
Smith 301  
Ext. 2786  
B. Walden



Maria C. Trevisan  
Guest Investigator  
Biology  
Redfield 1-04  
Ext. 3247  
H. Caswell



Parrish M. Wall  
Mess Attendant  
R/V Atlantis II  
Marine Operations  
Ext. 2208  
H. Dakers

## Knorr Returns to WHOI

continued from page 1

workbenches for the labs. Associate Scientist Dana Yoerger of AOP&E is heading a team to install the new state-of-the-art dynamic positioning system aboard the ship, procured on a grant from the National Science Foundation.

After the homecoming celebration access to *Knorr* will be strictly limited to allow work aboard ship to continue as quickly as possible.

The refit to *Knorr* has been substantial. The ship was cut in half and a 34-foot midsection added, providing additional laboratory and machinery space as well as deck area. The vessel's two direct-drive cycloidal propellers were replaced by twin azimuthing thrusters aft (see photo), and a retractable thruster forward. Power for the thrusters and all other systems is provided by a state-of-the-art integrated diesel-electric power plant.

*Knorr* was launched in 1968 at the Defoe Shipbuilding Corporation in Bay City, Michigan, under the direction of the Naval Ship Systems Command and delivered to WHOI in 1970. The ship is owned by the U.S. Navy but operated for the ocean research community by WHOI under contract with the Office of Naval Research. Both *Knorr* and sistership *Melville*, operated by the Scripps Institution of Oceanography in La Jolla, CA, are AGOR-14 class ships. *Melville* remains at McDermott Shipyard in final stages of its refit and upgrade. Once the refits to *Knorr* and *Melville* are complete, the vessels will be the most capable ships in the U.S. academic research fleet.

### Statistics

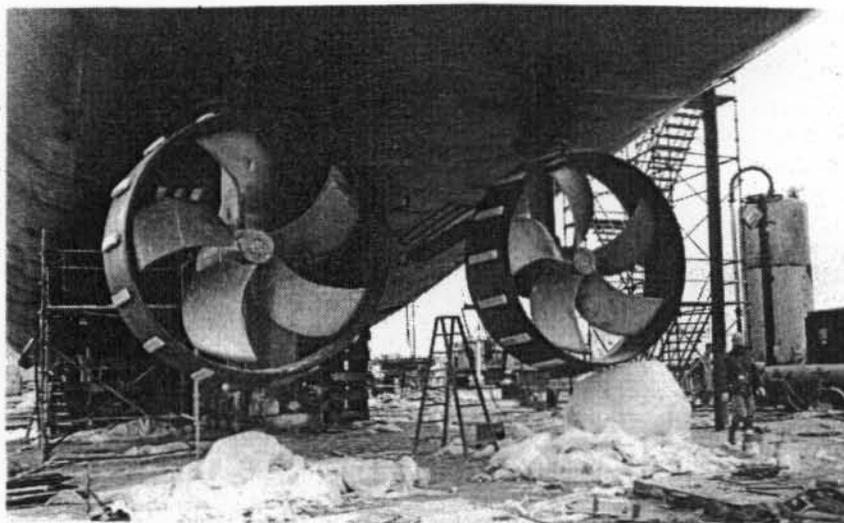
Before	After
<i>Length Overall</i> 245 feet	279 feet
<i>Displacement</i> 2,028 long tons	2,685 long tons
<i>Horsepower</i> 2,500	3,000
<i>Cruising Speed</i> 10 knots	12 knots
<i>Range at 10 knots</i> 10,000 nm	15,000 nm
<i>Scientists' Berths</i> 24	34

## Ship Notes

### ATLANTIS II/ ALVIN

R/V ATLANTIS II and DSV ALVIN departed Seattle October 3 for a nine-dive series off the Oregon coast. The vessels are scheduled to arrive in Astoria, Oregon, October 14. After a few days in port, they will head south to San Diego for scheduled shipyard maintenance.

Photo by Jerry Cotter



Twin azimuthing thrusters have replaced *Knorr's* cycloidal propellers.

### OCEANUS

OCEANUS departed Woods Hole October 1 on Voyage #244 to conduct engineering and performance tests for newly developed instrumentation in the Sargasso Sea. The ship is due back in Woods Hole October 12 and is scheduled to depart October 17 for an nine day biological cruise to Deepwater Dumpsite 106. OCEANUS will conduct biological studies October 29-November 4 before entering the shipyard for routine hull maintenance.