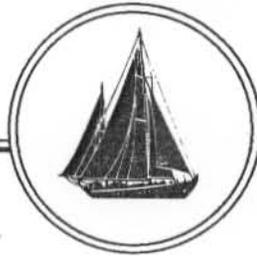


NEWSLETTER

WOODS HOLE
OCEANOGRAPHIC INSTITUTION



January 1992

Schmitz, Dick Receive Clark Chairs

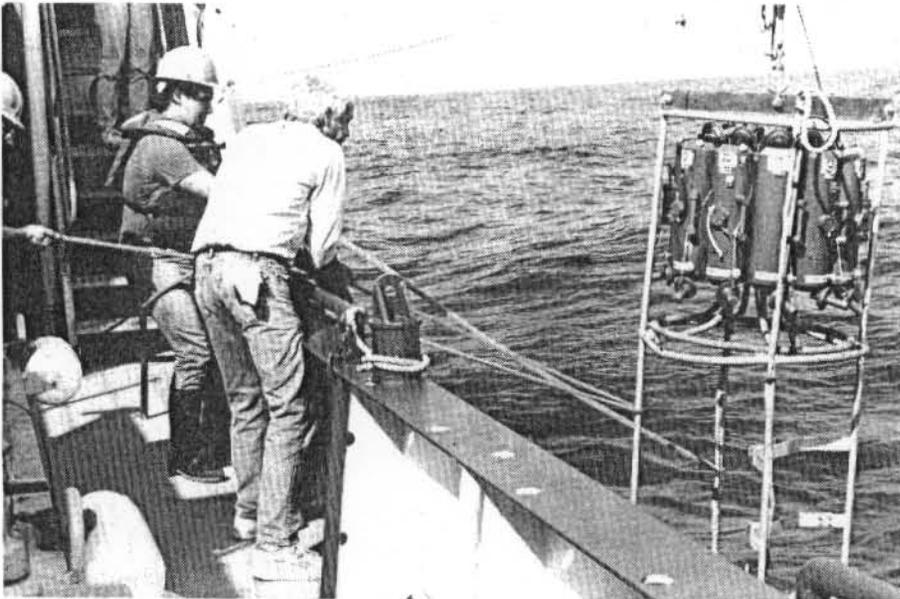
Senior Scientists Bill Schmitz of the Physical Oceanography Department and Henry Dick of the Geology and Geophysics Department have been named the new recipients of the W. Van Alen Clark Chairs for Excellence in Oceanography.

The permanently endowed chairs are awarded for a five-year period to tenured members of the scientific staff "who have distinguished themselves through extraordinary accomplishments in marine scientific research and education." Nominations were solicited from the scientific staff, with selection based on the individual's record of scientific excellence and potential as well as commitment to the long-term development of science at the Institution. The awards were approved by the Executive Committee of the Board of Trustees. Funds from the award can be used for salary support at any time during the award period, which began January 1.

Bill Schmitz has made fundamental contributions to our understanding of ocean circulation and eddies. His efforts to develop and utilize the technology of moored current meters revolutionized descriptive physical oceanography. During the 1970s and 1980s he championed the importance of making accurate, stable and long-term direct observations of the energetic regions of the North Atlantic and Pacific Oceans. He provided energy, scientific insight and leadership to the Buoy Group

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Photo by Craig Marquette



Left to right: Ollie Zafiriou, Sean Kery and Jeff Stolp launch a water sampler rosette on OCEANUS Voyage # 245 in October. More photos page 3.

R/V Knorr Status Report

In the interest of dispelling rumors and getting the word out about the status of R/V *Knorr*, Associate Director for Marine Operations Dick Pittenger provided the *Newsletter* with the following information. It is well known that several major problems aboard R/V *Knorr* in recent weeks have postponed the ship's scheduled January 24 departure for the Mid-Atlantic Ridge. Pittenger says the problems have been or are being corrected and *Knorr* should depart by February 7.

The first significant problem occurred January 4, when the main engine room flooded. The use of dissimilar metals by McDermott Shipyard caused an iron plug in the copper/

nickel cooling line to rust and dissolve, allowing seawater to flood the bilges and main engine room to a level several inches above the deck plates. The flooding was discovered and stopped through quick action by personnel from Facilities, the Marine Department and Coast Guard Group Woods Hole.

The engine room was dewatered and all equipment affected by the salt-water intrusion cleaned and dried. Equipment included four main generators, fuel oil purifiers, fuel oil and lube transfer pumps and various electrical junction boxes and electrically controlled valves in the bilges. The rest of the ship has been checked and several

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"Most human history has not afforded men much chance to pursue their curiosity, except as a hobby of the rich or within the refuge of a monastery. We can count ourselves fortunate to live in a society and at a time when we are actually paid to explore the universe."

Henry Stommel, upon receiving the Bigelow Medal in 1974

The Woods Hole Oceanographic Institution announces with great sorrow the death of Henry Melson Stommel on January 17 in Boston. He was 71 years old.

Hank Stommel was the most prodigious and influential oceanographer who ever lived. He made fundamental contributions to nearly every area of physical oceanography, to some subjects returning several times during his long career with new ideas and new approaches to elaborate and deepen our understanding of them. He was a theorist of extraordinary creativity, and an astute observer willing to spend weeks at sea. His work combined penetrating physical insight with the simplest possible mathematics, always embodying the same approach: to find the simplest model of the underlying physical process and to expose its essence. He was never satisfied until he understood the details of how things really worked. He was always on the forefront, grappling with the observations until he could visualize the essential process and develop a simple model, and then moving on as others followed him into that field.

Hank's stimulation to the field of oceanography over the past five decades has been enormous. His originality and the range and penetration of his own research have in major part generated the modern concepts of ocean circulation.

Hank shared his ideas and his enthusiasm with anyone who was interested; he was always a willing collaborator on something intriguing. His intellectual energy and exuberance for explaining to others what he had learned were tremendous. His deep physical insight, his broad scholarship and his zest for scientific research have been an inspiration to generations of oceanographers and students.

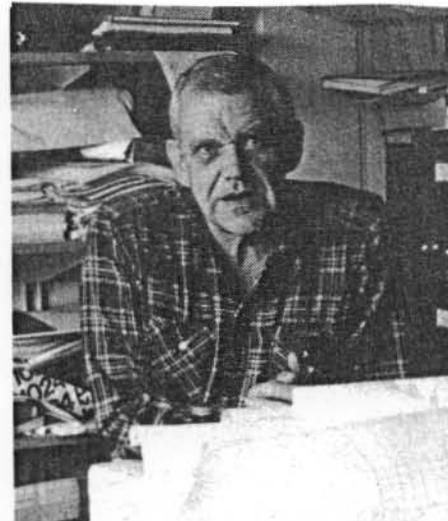
Hank was generous without limit, imparting subjects for inquiry to others, and encouraging all in their work. His honesty was unflinching and he has been a beacon to those who have known him.

Hank was intensely curious about all aspects of human endeavors. He had a voracious appetite for life—his interests included all aspects of science and mathematics, music, painting, history, gardening, his family and others who populated his world.

Hank was born in Wilmington, Delaware, on September 27, 1920, and attended public schools there. One of his first scientific interests was astronomy, and it was in that field that he completed a bachelor's degree at Yale University in 1942. He taught mathematics and astronomy at Yale for two years, and then became a Research Associate at WHOI, where he stayed until 1960, when he joined the Harvard University faculty as Professor of Oceanography. In 1963 he moved to MIT, where he was teacher to a generation of graduate students. In 1978 he returned to WHOI to again be completely involved in his exploration of the world ocean.

Among the numerous awards Hank received are the Sverdrup Medal from the American Meteorological Society in 1964, WHOI's Bigelow Medal in 1974, the Maurice Ewing Award from the American Geophysical Union in 1977, the Rosenstiel Award from the American Association for the Advancement of Science in 1978, the Agassiz Medal from the National Academy of Sciences in 1979, the Huntsman Award from the Bedford Institute of Oceanography in 1980, the Grand Prix d'Océanographie de Monaco in 1982, the Bowie Award from the American Geophysical Union in 1982, the Crafoord Prize from the

Photo by Vicky Cullen



Henry M. Stommel

Royal Swedish Academy of Sciences in 1983, the Albert Defant Medal from the German Meteorological Society in 1986, and the U.S. National Medal of Science in 1989. He was also the recipient in 1966 of oceanography's somewhat whimsical Albatross Award.

A member of the National Academy of Sciences and the American Academy of Arts and Sciences, Hank was elected a Foreign Member of the Soviet Academy of Sciences in 1976, to The Royal Society (London) in 1983, Membre d'Honneur of the Société de Géographie in Paris in 1983, and a Foreign Associate of the French Academie des Sciences in 1984.

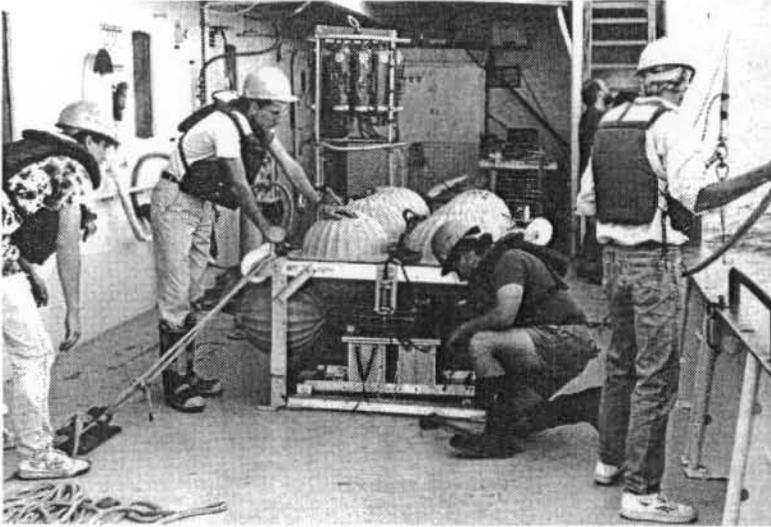
Hank is survived by his wife, Elizabeth B., of Falmouth; a daughter, Abigail Adams, of Hatchville; and sons Matthew of Woods Hole and Elijah of East Thetford, Vermont.

The family requests that memorial gifts be directed to a fund that will be established in Hank's honor at the MBL/WHOI Library for purchase of scientific journals.

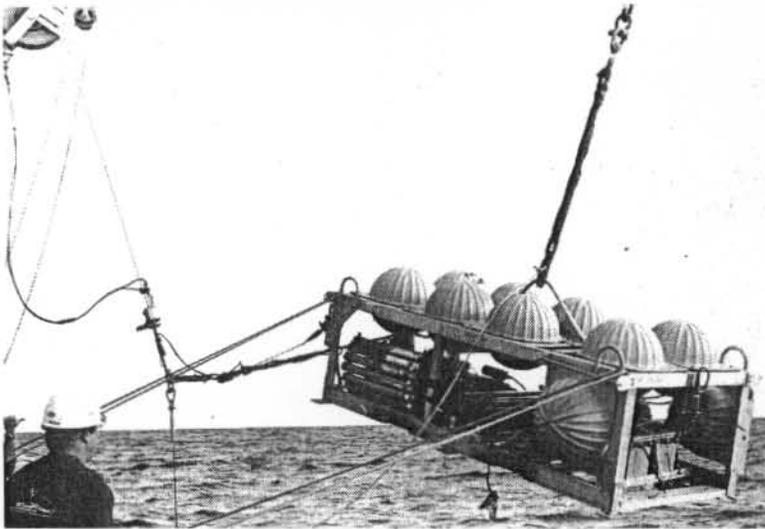
OCEANUS Voyage #245

October 1991

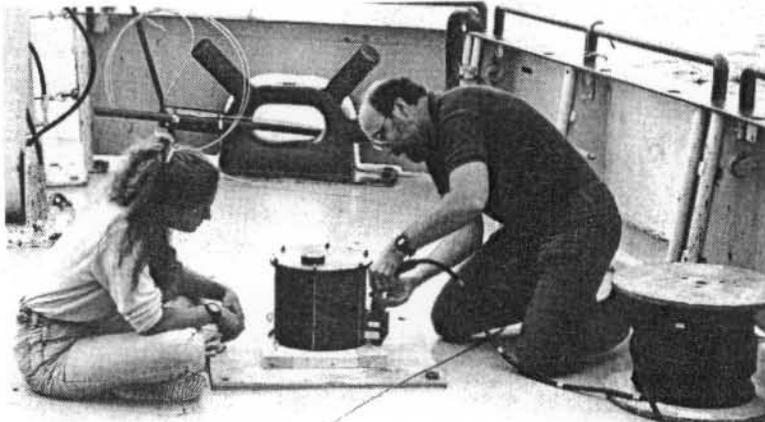
Photos by Craig Marquette



Left to right: Chris Kinkade, Jim Ledwell, Sean Kery and Jeff Stolp prepare an injection sled, which releases a harmless gas tracer into the ocean to measure turbulent mixing. The sled was launched during a test cruise for NATRE (North Atlantic Tracer Release Experiment), which begins in April.



Launching the injection sled off the starboard side.



Carla Zimmerman and Harold Rochat test the submersible light sensor, which measures light intensity at different depths.



Jim Ledwell displays the anti-two-blocking device, built by Rod Catanach and the ALVIN Group, to prevent instrument damage.



Ken Doherty and Craig Taylor bring "SID", a biological incubator, into the lab for analysis.

New Faces



Karen L. Coluzzi
Part-Time Helper
G&G
McLean 252
Ext. 3369
A. Gagnon



Jane E. Crobar
Food Services
Assistant/Casual
Facilities
Fenno
Ext. 2477
S. Payne



James W. Dolan
Research Assistant II
G&G
Clark S326
Ext. 2586
R. Detrick



Glenn R. Enos
Stockroom Clerk
Purchasing
Smith 114
Ext. 2282
K. Bohr



Jovinol Fernandes, Jr.
Relief Mess Attendant
Marine Operations
R/V KNORR
Ext. 2208
M. Barros



Perry Hodell
AB
Marine Operations
R/V KNORR
Ext. 2208
M. DeRoche



Barry P. Holton
Mess Attendant
Marine Operations
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M. Barros



Min Jiang
Postdoctoral Scholar
AOP&E
Walsh Trailer
K. Stewart
Ext. 2440



Timothy C. Kenna
Research Assistant II
Chemistry
Clark 419
Ext. 4883
M. Kurtz



Robert A. McCabe
Mechanical Shop
Supervisor
Facilities
Iselin 154
Ext. 2612
W. McKeon



Virginia McKinnon
Staff Assistant II
Communications
Co-op
Ext. 2252
L. Campbell



Glenn A. Omans
Guest Student
AOP&E
Bigelow 210
Ext. 2437
J. Lynch



Brett M. Price
Relief Mess Attendant
Marine Operations
R/V KNORR
Ext. 2208
M. Palmieri



Evan L. Smith
AB
Marine Operations
R/V OCEANUS
Ext. 2208
R. Simpkin



Susan D. Quigley
Mess Attendant
Marine Operations
R/V ATLANTIS II
Ext. 2208
R. Morris

In Memoriam

The Woods Hole Oceanographic Institution announces with great sorrow the death of Robert J. Hindley January 7, 1992 at Falmouth Hospital. He was 47 years old.

Bob was born in New Bedford, MA in 1944. Due to his father's position in the U.S. Coast Guard, he moved frequently, attending grades 1-6 in Gay Head on Martha's Vineyard, grade 7 in New Bedford, and grades 8-12 in Falmouth. He graduated from Lawrence High School in Falmouth in 1962 and briefly attended Cape Cod Community College. Bob lived for many years at Nobska Lighthouse in Woods Hole, where his father, Joseph, was the lighthouse keeper.

Bob began working at the Institution in March 1963 as a part-time employee in the Physical Oceanography Department, preparing bottles for

Dean Bumpus. He left the Institution in June 1964, working briefly for New Bedford Ice Company in Woods Hole as a second engineer, as a fire equipment salesman for Ralph Perry Inc., and at Atkins Gulf Service Station in Falmouth as a mechanic.

Bob returned to WHOI in February 1968 as a warehouseman in the Services Department, headed by Andy Wessling. In 1970 Bob was promoted to service helper, and in 1974 to Senior Services Assistant. Four years later he was promoted to Facilities Service Supervisor, a position he held until his death. He and the Facilities Services crew received many written and verbal notes of appreciation from Institution staff for their help in moving offices and equipment and for handling logistics for numerous conferences and Institution events. The notes of

appreciation included such remarks as "your attention to minor details, which could very well mean major problems if overlooked, is especially appreciated," and "his organizational skills, his experience allows him to anticipate problems and determine solutions before 'mishaps' occur." Bob's interest in fire and safety issues began in the early 1970s, when he started taking night courses in fire science at Cape Cod Community College. Between 1971 and 1978 he completed many courses in fire safety at the Massachusetts Firefighting Academy, Otis Air Force Base and Massachusetts

Photo by Rob Brown



Robert J. Hindley

Maritime Academy. In 1976 he completed the American Heart Association Cardiopulmonary Resuscitation (CPR) Instructors Class and was registered as an Emergency Medical Technician (EMT) in 1978. He completed the Massachusetts paramedic certification program in 1987 and the national certification program in 1988. He volunteered as a call firefighter, EMT and paramedic for the Town of Falmouth for many years, and taught classes in CPR and first aid at WHOI and in the community. Declining health in 1991 forced him to cut back on his commitments, and in recent months he was working on special assignments, handling fire inspection/safety issues.

Bob is survived by his wife, Pamela (Bowman) Hindley of East Falmouth, a former research assistant in the Biology Department; a daughter, Ryanne Hindley, also of East Falmouth; a sister, Elizabeth H. Hatzikon, of Falmouth; and many nieces and nephews.

A memorial service was held January 10, 1992 at Church of the Messiah in Woods Hole. Bob's family has requested that memorial donations be made to the Visiting Nursing Association of Upper Cape Cod/HIV Support Group, c/o Maureen McKay, 67 Ter Heun Drive, Falmouth, MA 02540.

Copier Price Increase Notice

The price for photocopies is now 6 ¢ per copy. Copies made at Repro remain 4¢ each.

Promotions

Donald M. Anderson (Biology)
to Senior Scientist 10/28/91

David C. Chapman (Physical Oceanography)
to Associate Scientist w/Tenure 10/28/91

Susan A. Casso (Chemistry)
to Executive Assistant II 11/25/91

Lee Anne Campbell (Communications)
to Information Officer 11/25/91

Richard Limeburner (PO)
to Research Specialist 11/18/91

Mark D. Kurz (Chemistry)
to Associate Scientist w/Tenure 10/28/91

Edward R. Sholkovitz (Chemistry)
to Senior Scientist 10/28/91

Ralph D. Simoneau (PO)
to Sr. Engineering Assistant II 10/28/91

John H. Trowbridge (AOP&E)
to Associate Scientist 10/28/91



William M. Marquet

The Woods Hole Oceanographic Institution announces with great sorrow the death of William Morgan Marquet January 11, 1992 in Jacksonville, Florida. Skip was 62 years old and on his way to go bird watching in the Everglades.

Skip was born in Syracuse, New York, and graduated from Brooklyn Technical High School in 1947. He received his BS in engineering from Princeton University in 1951 and MS in engineering from Columbia University in 1952. Shortly after graduation from Columbia he went to work for Pennsylvania Electric Company in Johnstown, PA, as an Incremental Load Engineer. In 1954 he joined the U.S. Army and became a member of the Army's scientific and technical program. After leaving the Army in 1956 Skip joined the aeronautical division of Minneapolis Honeywell as a field engineer and team leader. While working for Honeywell in France Skip met his wife, Claudine. Hoping to pursue careers where they could make personal contributions, Skip and Claudine left Honeywell in 1961 to travel and study. While in Europe, Skip met and worked with Edwin Link on the development of underwater instruments. Link convinced Skip that oceanography was a field where a person could make a personal contribution. Link, a WHOI Trustee,

told Skip of an institution in Woods Hole that was building a submarine.

Skip joined the WHOI staff in 1963 as a submarine electronics technician, and worked for Earl Hays and William Rainnie in the early days of the ALVIN program. Skip's capabilities as a systems engineer quickly became apparent. Earl Hays commented that Skip "was the anchor man in practically all phases of the submersible development. He carried a heavy load of first class technical work, often being the first to point out the need for something, laying out the design specifications, and doing the detailed design and testing." In 1969 Skip received a Navy Meritorious Public Service Citation for his contribution to the ALVIN team that located a hydrogen bomb lost off the coast of Palomares, Spain. During the years when members of the ALVIN team literally lived and breathed technology into it, Skip gained a reputation for his abilities to prepare winning proposals, manage finances, and inspire men and women. He developed deep-sea navigation and underwater imaging systems for ALVIN which were later incorporated into his work on the ANGUS vehicle system. Skip also participated in many of the major expeditions which took place during the 1960s and 1970s, including Project FAMOUS. In 1970 Skip was promoted to Research Specialist, and from 1978 to 1980 served as the manager of the ALVIN's Deep Submergence Engineering team. In 1980 he was promoted to Principal Engineer, the Institution's highest

position for engineers.

After a year's sabbatical in France during 1979-1980, Skip returned to WHOI to establish the Deep Submergence Laboratory (DSL) with Bob Ballard. Skip played a key leadership role in the formulation, funding and development of DSL, and of the ARGO, JASON Jr., and the MEDEA/JASON systems. In 1989 he established the Oceanographic Systems Laboratory, where he has been instrumental in the development of next generation, fiber-optic based underwater vehicles.

A quiet man, Skip had a rare ability to see the "big picture," to organize an approach to problems and find a simple solution. He viewed his position as one in which he could "guide and encourage the team members to pull together and do a more comprehensive and professional job while viewing it to be challenging, fun and worthwhile." His mature counsel, personal contributions, and engineering expertise will be greatly missed not only at WHOI but throughout the international oceanographic community.

Skip is survived by his wife, Claudine R., of Falmouth; two daughters, Cathy of Sheffield, MA and Stephanie of San Francisco, CA; and his mother, Berta, of Asheville, NC. A scholarship is being funded in Skip's memory at Falmouth Academy. If you wish to contribute please mail checks, payable to the "William Marquet Scholarship Fund", to Falmouth Academy, 7 Highfield Drive, Falmouth, MA 02540.

*In Celebration of the Life of Skip Marquet,
his family will be at home
on Saturday, February 15th,
from 2:00 to 5:00 p.m.
14 Mill Road, Falmouth*

Red Cross Blood Drive Scheduled

The Red Cross Blood Drive will be held February 12 from 11:00 a.m. to 4 p.m. on the Clark Lab 5th Floor. For appointments contact Betsey Doherty at ext. 2728 or Hovey Clifford at ext. 2341.



Bill Schmitz

Photo by Tom Kleindinst



Henry J. B. Dick

and started the SOFAR (sound fixing and ranging) float group in the Physical Oceanography Department.

Schmitz has helped the U.S. Navy's Institute for Naval Oceanography transition basic scientific knowledge into operational information and helped develop an operational modelling capability within the Navy research community. In 1991 he was honored by the Navy with its Meritorious Public Service Award. In recent years his research efforts have focused on quantitative evaluation of ocean circulation models.

"The Clark Chair provides flexibility from the routine of proposal writing and some time to reflect on my research interests and directions,"

Schmitz noted. "It will allow me to develop other ideas I've wanted to pursue."

Schmitz received his bachelor's degree in physics and his Ph.D. in physical oceanography from the University of Miami. He joined the WHOI staff as an assistant scientist in 1967 and was promoted to associate scientist in 1971. In 1979 he was appointed a senior scientist. Bill is the author or co-author of 55 refereed scientific publications.

Henry Dick's work in the early 1980s on the correlations of ridge tectonics and basalt chemistry has spawned a whole new approach to studying ridge tectonics. His work on the petrology of abyssal peridotites in

the mid-1980s clearly showed how ridge melting processes are coupled to mantle dynamics. He has made major contributions to the Ocean Drilling Program and has lead the W. M. Keck Geodynamics Program at WHOI since 1988, bringing scientists together from diverse fields to address interdisciplinary problems.

Dick received his B.A. in geology from the University of Pennsylvania, and his graduate degrees in geology from Yale University. He joined the WHOI staff in 1975 as a postdoctoral investigator and was appointed an assistant scientist in 1976. He was promoted to Associate Scientist in 1980 and to Senior Scientist in 1990. He is the author or co-author of scientific publications.

The W. Van Alan Clark, Sr. Chair and the W. Van Alan Clark, Jr. Chair for Excellence in Oceanography were established in 1986 by an \$800,000 challenge grant from the Penzance Foundation, a charitable organization founded by the late Edna McConnell Clark to support those causes in which she and her husband, the late W. Van Alan Clark, Sr., had great interest and involvement during their lifetimes.

The first two recipients of the Clark Chairs were Senior Scientists Bill Jenkins of the Chemistry Department and Mike Purdy of the Geology and Geophysics Department.

Congratulations!

— to Cindy Lee Van Dover and George Meier of AOP&E, who were married October 22 at sunset on the Bigelow Lab cupola by Justice of the Peace Steve Murray.

— to Chip Panciera of the Biology Department and Joe Clancy, who were married SuperBowl Sunday, January 26.

— to Nancy Pacheco of Personnel and Alvin Chief Pilot Pat Hickey, who were married January 11 and held their wedding and reception at Carriage House.

— to Jane Peterson and Richard Ridge of the Biology Department, who were married December 20.

— to Dave Gallo, Administration, and Cindy Gallo, G & G, on the birth of their second son, Joseph, January 30 at Jordan Hospital in Plymouth. Joseph weighed 7 lbs. 1/2 ozs. and joins five-year-old brother Peter.

— to Peter Marena of the Carpenter Shop and his wife Deborah on the birth of their first child, Nicholas John, January 13 at Falmouth Hospital. Nicholas weighed 7 lbs.

Oceanus Slides Are Missing

A set of slides taken by Jerry Dean on an *Oceanus* cruise disappeared several months ago, possibly misaddressed in the Institution mail. There are about 15 original slides and a duplicate of each original. Anyone who knows of stray, unidentified, mostly deck-shot slides is asked to contact Jerry Dean, ext. 2240, or Vicky Cullen, ext. 2719.

Monday, February 17, is
President's Day.

other instances of the use of dissimilar metals identified and corrected.

The second problem has been the ship's control system. "We have an interesting combination of newness, complexity and scattered installation problems that together pose a significant challenge," Pittenger said. "We have been working with the system designers and installers and with the ship's crew to debug and gain familiarity and expertise in handling the ship. State of the art thrusters, propulsion and dynamic positioning systems give us great potential but also pose a great challenge at this stage."

Several dockside trials and three underway trials for testing of and training on the new handling system have been successfully completed. "We're at the point now that the system is functioning properly and the crew is getting more familiar and confident in the numerous modes of operation," Pittenger said. "Our expectations are that *Knorr* will be able to maneuver to the very highest ship position standards, well beyond those that were previously achievable with the ship's former handling system."

The latest and current problem was discovered by WHOI personnel as they prepared to depart for the Delaney/Spiess Mid-Atlantic Ridge cruise. Pittenger says WHOI received a Certificate of Inspection from the Coast

Guard as required, but on digging deeper found that McDermott Shipyard had failed to properly obtain Coast Guard approval of the design of the Halon firefighting system in the main engine room compartments. WHOI then made the decision not to depart on a science cruise until that approval is properly obtained.

"We have worked hard since the *Knorr* returned to WHOI in mid-October and have made tremendous progress," Pittenger said. "The data collection, logging and distribution system has been installed, the IMET sensor platform completed, the new traction winch installed and tested, and very visible work like benches and lab arrangements completed. The ship's crew and personnel from the Marine Department and the shops have been working continuously since *Knorr* arrived to rectify problems from the shipyard. A lot has been accomplished in a very short amount of time."

The Marine Department and Shop personnel have installed two new hydrowinches and the associated fairlead system, added a new rescue boat to bring the *Knorr* up to SOLAS (Safety of Life at Sea) requirements, and spent a considerable amount of time quieting the air conditioning system in the labs and living quarters, according to Port Engineer Dutch Wegman. Steve Paige and his colleagues installed a new ra-

dio communications system, new radar, new internal communication system, new auto pilot and a state-of-the-art dynamic positioning system. The ship's engineers have spent much of their time repairing mistakes from the shipyard.

The engineers and Don LeBlanc's shop have also put together a new machine shop with new lathes, milling machines and other equipment. The carpenters provided new cabinets, shelves and benches throughout the ship.

"Although we aren't happy that these kinds of things happen, growing pains are to be expected in an upgrade and refit of this magnitude," Pittenger added. "We have a busy year ahead and are confident the *Knorr* will soon be at sea and have a very productive year."

Ship Notes

ATLANTIS II and ALVIN

R/V *Atlantis II* and DSV *Alvin* spent the holidays and January in San Diego. Engineering dives are scheduled February 6-11 before the ship departs February 17 for Manzanillo, Mexico, to work at hydrothermal vents on the East Pacific Rise near 9° N.

OCEANUS

R/V *Oceanus* departed Woods Hole January 25 for a seven-leg

voyage in the eastern North Atlantic. The first three legs of Voyage #250 are for the Subduction Experiment, a multi-year program to understand the mechanisms by which water masses formed in the mixed and near-surface layers of the ocean find their way into the upper ocean through air-sea interaction. Scientific activities on Leg I include recovery and redeployment of three instrumented surface moorings with IMET (Improved METeorological measurements) packages. *Oceanus* is due at Funchal, Madeira, February 15.

Dear WHOI,

On behalf of my mother, Jane Oakes, and the rest of my family I would like to thank all of you for your thoughtfulness and friendship during this difficult time. The loss of my father has been very hard on all of us but your prayers and good wishes have helped to ease our minds.

During the services and in your cards and letters, I have heard many words of admiration for my father. I write these words now in admiration of you, his friends. We saw many familiar faces during the services and many new ones too. I have always been proud of my father, but I may never have been prouder than the day of his funeral when so many of you came to pay your respects. We will always remember and treasure your tenderness and friendship.

Sincerely,
Harry E. Oakes Jr.