



NEWSLETTER

April / May 1984 WOODS HOLE OCEANOGRAPHIC INSTITUTION

FIRST KETCHUM AWARD PRESENTED TO INTERNATIONALLY-KNOWN MARINE GEOCHEMIST

The first Bostwick H. Ketchum Award was presented April 30, 1984 by Director John Steele to Dr. Edward D. Goldberg, professor of chemistry at the Scripps Institution of Oceanography and an internationally-known marine geochemist, in recognition of "his pioneering efforts and continuing leadership in environmental quality research in coastal and open ocean areas of the world." The certificate also noted Dr. Goldberg's "significant contributions to translation of scientific research into the policy-management arenas" and "his infectious excitement about biogeochemical research which has inspired many young ocean scientists."

The highlight of the award ceremony was the lecture by Dr. Goldberg on the "Informational Needs for Ocean Waste Disposal," particularly who makes the decision as to how much information is needed in order to pursue a course of action. He listed his three E's of information levels -- essential, extraneous, and excess -- and gave examples of each.

In closing his speech Dr. Goldberg said, "Dr. Oppenheimer once described himself as a premature anti-fascist. I consider Buck Ketchum a premature environmental scientist who guided us in our pursuits and whose work continues to lead the way [for those in biological/environmental oceanographic research]."

The Bostwick H. Ketchum Award is an endowed lectureship which brings an internationally-recognized scientist to Woods Hole for an annual lecture or supports a longer visit by a younger researcher. The award was established in 1983 as a tribute to the late Bostwick "Buck" Ketchum who passed away in 1982 at age 70. Buck Ketchum was a strong force in the development of biological oceanography in Woods Hole and a respected scientist at the international



Dr. John Steele presents the first Bostwick H. Ketchum Award to Dr. Edward D. Goldberg at Redfield Auditorium on April 30. Photo by Tom Kleindinst.

level. He was associated with WHOI for more than 40 years, retiring in 1977 as Associate Director. At the time of his death he was co-editor of a series of four volumes on ocean dumping, an area in which he carried out pioneering research, entitled "Wastes in the Ocean."

Appropriately, the first lecture in Dr. Ketchum's honor focused on the coastal zone and ocean waste disposal. In introducing the speaker, Dr. John Farrington, Director of WHOI's Coastal Research Center, pointed out Dr. Goldberg's many accomplishments in the study of man's impact on marine ecosystems and his concern with worldwide pollution problems.

KNORR RETURNS TO WOODS HOLE ON MAY 11

After a 10-month extended cruise in the South Atlantic, KNORR returns to Woods Hole on May 11 at approximately 10 a.m. Welcome back to all.

Monday, May 28, is the Memorial Day Holiday. Enjoy the long weekend.

REVISED EDUCATION ASSISTANCE POLICY

Effective July 1, 1984, the Employee Education Assistance Policy will change in a number of significant ways. The new policy is printed here with all revisions shown in bold type. The major changes are:

- 1) extension of eligibility to new employees,
- 2) transportation no longer an allowable cost,
- 3) addition of a \$25 book allowance,
- 4) maximum amount reimbursable increased to \$2,000, and
- 5) addition of a prepayment feature.

With the policy changes taking effect mid-year, the maximum amount reimbursable for 1984 is \$1,500.

Please remember that all applications for Employee Education Assistance must be approved before enrollment. If there are any questions, please call the Education Office, ext. 2219.

EMPLOYEE EDUCATION ASSISTANCE POLICY

The Institution encourages its employees to further their own careers by continuing their formal education through enrollment in courses and degree programs. Under the Institution's Employee Education Policy, formal education programs undertaken by employees to further their own career development may be partially or fully fundable through this cost-reimbursable plan. To be reimbursable, the subject area of study must be work related and approved by the Department Chairman or the Assistant Director for Finance and Administration. Courses which are not work related but are required for a work related degree may be reimbursed.

Eligibility

To be eligible for assistance, the employee must be a regular full-time employee who has completed at least six months of employment. Employees who enroll in courses prior to the end of the six-month period will be eligible for reimbursement if employed longer than six months. They are not eligible for prepayment.

Acceptable Schools and Courses

Regular courses offered for credit at accredited schools, colleges, and universities; courses credited toward a high school diploma or equivalency certificate; and correspondence university extension or adult education courses are all acceptable under this plan.

Professional seminars and workshops do not qualify. Certain categories of training offered in intensive short courses which may be required by the employee's department do not fall under this policy, but may be covered by the departmental or project budget involved.

Payment Policy

Reimbursable costs include tuition and required fees but not transportation costs or fees for late or deferred payment of tuition. An allowance of \$25.00 will be paid for required texts upon presentation of receipts.

The maximum amount reimbursable in a calendar year (January-December) is \$2,000 and may be adjusted periodically. A semester of study falling mainly in one year is attributable to that year.

To be reimbursed for a course, evidence of satisfactory completion (grade report) must be submitted. Satisfactory completion means a grade of C (or equivalent) or better for an undergraduate course, B or better for a graduate course. If no grade is given for a course, a certificate or letter from the school indicating satisfactory completion should be provided.

Upon submission of the reimbursement request form (see application procedure) to the Education Office, payment will be made through the Business Office within fourteen days.

Special arrangements for reimbursement of partial costs for correspondence courses may be made where the course lasts longer than six months.

Prepayment Policy

Prepayment of an amount between \$150 and up to \$750 but not to exceed 50% of the tuition and fees can be arranged by way of a payroll advance for all approved courses except correspondence courses. The employee will be required to sign an

agreement stating that if the conditions for reimbursement are not met as outlined above, the amount advanced will be settled by way of immediate payroll deduction.

Leave of Absence for Educational Purposes

Employees are normally expected to arrange to attend classes that do not conflict with normal working hours. If a course is available only during working hours, an employee may arrange for absences not to exceed eight hours per week.

Either such absences will be made up by satisfactory arrangements with the Department Chairman/Assistant Director for Finance and Administration or the employee may take a leave of absence without pay. Employees may take up to 25% Educational Leave and still be eligible for assistance under this plan. (See Personnel Practices and Procedures #3.1 for policy on Educational Leave of Absence.)

Application Procedure

Application for Employee Education Assistance must be made in advance of enrollment in the course or program for which the employee is requesting assistance. A standardized form (available from Department offices, Education, or Personnel) is to be used. This form requires information about the course or program the employee is planning to follow, an itemized budget showing the full cost and requested amount, a supporting statement from the supervisor, and approval (signature) from the Department Chairman/Assistant Director for Finance and Administration.

Upon completion of the form and submission to the Education Office, a carbon copy of the application will be returned to the employee indicating the decision. If approved, the employee will retain the copy and submit it along with evidence of satisfactory completion to obtain reimbursement. If prepayment is requested, the Education Office will notify the Controller's Office to prepare the necessary advance.

All requests will be processed through the Education Office, which will be responsible for developing a budget, maintaining records, recommending updates in the policy, and final approval of payment.

O.E. SCIENTIST WINS IEEE AWARD

Ahud Weinstein, an associate scientist in the Ocean Engineering Department, has received the 1983 IEEE Acoustics Speech and Signal Processing Senior Award for a series of papers entitled "Fundamental Limitations in Passive Time Delay Estimation."

Ahud, a systems engineer with a B.Sc. in electrical engineering from Technion Israel Institute of Technology and a master's and doctorate in systems and information sciences at Yale, was named an assistant scientist at WHOI in 1978. He was appointed associate scientist in 1982.

STOMMEL ELECTED TO FRENCH ACADEMY

Senior Scientist Henry Stommel of the Physical Oceanography Department has been elected a Foreign Associate of the Academie des Sciences of France, a prestigious organization founded in 1666 by Louis XIV and equivalent to the U.S. National Academy of Sciences.

Early members of the Academie included Pascal and Descartes. Later members were Lagrange and Ampere. The Academie consists of up to 130 ordinary members and, at most, 80 foreign associates and 160 correspondents.

Hank's election to the French Academy is just another in a long list of international honors including membership in the Soviet Academy of Sciences, the Royal Society of London, and the Crafoord Prize from the Swedish Academy of Sciences.

His research interests include the general circulation of the oceans, the Gulf Stream, eddy dynamics, equatorial currents, deep water convection, and climate, among many other topics.

EARLY COPIES OF OCEANUS WANTED

Bill Dunkle, ext. 2471, would appreciate hearing from any owners of early Oceanus magazines who would be willing to donate them to the archives. He is especially interested in the years 1952 through 1960.

OCEANOGRAPHIC SHIP NOTES

KNORR is completing the final leg of extended Voyage #104. Leg X, which began in Ponta Delgada, Azores, on April 24, will end on May 11 at Woods Hole at approximately 10 am. In the course of the cruise, hydrographic stations will be made, and box cores will be taken in the Scotian Gulf. Leg IX took the ship from Dakar, Senegal, to the Azores on a transit leg

ATLANTIS II and ALVIN continue on extended Voyage #112, now in the Pacific. During Leg VI, scientists will study hydrothermal vents on the East Pacific Rise. Seventeen dives by ALVIN will be made, in addition to Niskin bottle sampling at hydrographic stations. Departure and destination port is Acapulco, Mexico.

OCEANUS has been busy with various short cruises in and out of Woods Hole. Voyage #151 in April was the fourth of the 1984 SEEP (Shelf Edge Exchange Processes) Program cruises, the purpose of which was to study the flux of particulate material out of the euphotic zone and to conduct a hydrographic survey on the Continental Shelf and Slope south of Long Island.

Five days after returning from the previous cruise, OCEANUS departed on the fifth SEEP cruise. Instrumented subsurface moorings and guard buoys were deployed and various other scientific activities were performed on the Continental Shelf and Slope south of Martha's Vineyard, Block Island, and Long Island.

Voyage #153, which departed on May 2 and is due in to Woods Hole on May 12, is for the study of biological processes on the Mid-Atlantic Continental Slope and Rise in order to assess the impact of exploratory drilling activities on the benthic communities and to determine their recovery rates. The area of operation is east of Cape May, NJ, in Lease Block #372.

ASTERIAS has returned to service, after extensive work to repair damage suffered in the November fire. Trips have been made to various local coastal sites and the vessel is now operating in a fully operational manner.

LULU remains dockside. Funding from Navy sources, which will permit a trip to the shipyard for underbody maintenance, and then a transit to San Diego, has not yet been received.

OCEAN DRILLING PROGRAM SELECTS SHIP

Texas A&M Research Foundation has reached agreement with SEDCO Inc. of Dallas for the long-term charter of a drilling ship for the Ocean Drilling Program (ODP) funded by the National Science Foundation and nine foreign countries.

ODP is the successor to the scientific and technical programs of the Deep Sea Drilling Project (DSDP) carried out by Scripps from 1966 to 1983. Program management will be undertaken by the Joint Oceanographic Institutions Inc. of which WHOI is a member.

The 470-foot ship being considered is SEDCO/BP 471 owned jointly by SEDCO and British Petroleum. It is 70 feet wide with a displacement of 16,596 tons and can accommodate 50 scientists and a crew of 52. The derrick towers 200 feet above the water line. A specially designed computer controlled dynamic positioning system keeps the ship over a specific location while drilling in water depths as great as 27,000 feet. Testing is scheduled for the fall; the first scientific cruise is Jan. 1985.



SEDCO/BP 471, jointly owned by SEDCO Inc. and British Petroleum and selected for the Ocean Drilling Program, has rated drilling depth capabilities ranking it among the top of the worldwide dynamically positioned drillship fleet.

UP-TO-DATE WEATHER INFORMATION BY COMPUTER

It is now possible to receive National Weather Service East Coast Marine Weather information on a 6-hourly basis by a 300 baud computer link to the Maryland Cooperative Extension Service files at the University of Maryland. This is a formal product of NOAA/NWS in cooperation with the University of Maryland and is free except for the phone call.

You need: 300 baud, 8 bits, no parity, 1 stop bit.

Call: (301) 820-8690.

When the computer responds ENTER ID:, enter YY

When the computer responds PASSWORD:, enter JOHNM

When the computer responds ENTER REQUESTS:, you have various options as follows:

- 7500 gives a menu for Marine Weather Products.
- 7502 gives Buzzards Bay weather.
- 7602 gives coastal weather from Eastport to Merrimack River out 25 miles.
- 7710 gives the Gulf Stream location and positions of warm and cold eddies.
- 7711 gives tropical storm warnings and advisories.
- 7901 gives Notices to Mariners.

(! or SHIFT 1 is the Logoff command)

For more information about the system, contact Mel Briscoe, ext. 2524, or Bob Werner in the Ocean Services Unit of the NWS Forecast Office, Washington, D.C., telephone (301) 899-3296.

COASTAL RESEARCH CENTER GRANTS AVAILABLE

Student proposals for up to \$7,000 for equipment, supplies, and travel will be considered by the Coastal Research Center. Joint Program students who have passed their general exams and are proposing coastal-related research for their thesis work are eligible. Topics related to estuarine, near-shore, or continental shelf processes and related instrumentation are appropriate. Funds are limited and grants are designed to allow completion or inclusion of some important aspect of thesis research not funded, to allow start-

up funds while waiting for a proposal to be funded, or for seed funding to help in preparation of a proposal. Students should contact their departmental representative of the CRC Advisory Committee for further information.

The CRC Advisory Committee includes:
William D. Grant, O.E. (Chairman)
David G. Aubrey, G&G
Robert C. Beardsley, P.O.
Judy Capuzzo, Biology
David A. Ross, Sea Grant
Edward R. Shoikovitz, Chemistry
Maynard E. Silva, MPOM

CRC SPRINGS INTO ACTION UPON GROUNDING OF FREIGHTER OFF NAUSET BEACH

WHOI's Coastal Research Center Rapid Response Funds allowed Institution scientists to coordinate initial contacts and monitor the grounded freighter, ELDIA, on Nauset Beach. Fortunately, the accident resulted in only minimal oil spillage, with no discernable effects on the beach or offshore waters. Dave Aubrey, a member of CRC's Rapid Response Team, noted that the important early contacts and coordinated response could not have been accomplished without the assurance of the Rapid Response seed funding which was established for just such a purpose. "The participation of WHOI personnel at the site of the grounding, and their offer of assistance where required, was amply acknowledged by the local, state, and federal agencies involved," Dave said.

The grounding on March 29 was an international event -- the ELDIA was of Greek ownership, Maltese registry, with a Filipino crew which had just offloaded a cargo of Columbian sugar in Nova Scotia. The freighter went aground on the beach face where only days before a 5 meter high dune had existed. The precariousness of the perch made officials concerned about oil spillage. Luckily, only about two hundred gallons leaked into the ocean between the time of the beaching and offloading of the fuel oil on April 4. Efforts are now underway to free the freighter from the shore, "a significant effort which is becoming more difficult every day as longshore-directed sand ponds behind the freighter," notes Dave.

IN MEMORIAM

The Institution notes with sorrow the passing of Thomas J.M. Schopf on March 18 while leading a marine biology field trip in Texas. He was 44 years old. An award-winning University of Chicago paleontologist, Dr. Schopf was president-elect of the Society for the Study of Evolution and the founder and former editor of the journal *Paleobiology*. He is survived by his brother, Dr. James W. Schopf, a paleobiologist at the University of California at Los Angeles.

SAFETY NOTICE - AN ECLIPSE IS ON THE WAY

An annular eclipse occurs on Wednesday, May 30. This is an unusual and dangerous eclipse -- at no time will the sun be totally blocked out by the moon. As seen in that narrow central path of maximum eclipse (at its widest only six miles across along a track from Louisiana to Maryland) the whole of the moon will cross in front of the sun, but the sun will not be totally blocked out by the moon. Because of the relative distances of the sun and moon from earth at that time, the moon will appear to be slightly smaller than the sun. As a result, the sun will not wholly disappear from view. A ring, or annulus, of light will be seen surrounding the moon. A noticeable effect will occur in Massachusetts and will last for about 2 hours between noon and 2 pm.

Care should be taken in observing the eclipse as a potential for solar retinopathy (a permanent burning of the retina of the eye causing irreversible blindness) exists for anyone looking directly at the sun during any part of the eclipse. Do not use a camera, telescope, or binoculars as these magnify and intensify the sun's light.

The only safe way to look is indirectly. One suggestion from the National Society to Prevent Blindness is to use two pieces of cardboard. Make a pinhole in one, and with your back to the sun hold the sheet with the hole over the other sheet. Adjust the sheets to focus the light. By looking at the bottom sheet you can see an exact image of the sun and its eclipse.

YOERGER APPOINTED ASSISTANT SCIENTIST

Dana R. Yoerger has been appointed an assistant scientist in the Ocean Engineering Department. He will be working on the Argo/Jason project with Bob Ballard.

Dana, who received his undergraduate, master's, and doctoral degrees from MIT in mechanical engineering, will specialize in the modeling, design, and control of dynamic positioning systems (automatic control systems for fine maneuvering at sea). His particular interest is in unmanned remotely operated underwater vehicles and manipulators.

During 1983 Dana was a visiting investigator at WHOI and served as a lecturer/research associate at MIT in 1982.

BENEFIT BRIEFS

Effective February 1, 1984 Blue Cross and Blue Shield of Massachusetts will cover liver, heart, and heart-lung transplant procedures as any other accepted surgical procedure. Pilgrim Health Care will continue to cover only cornea, kidney, and bone marrow transplants for a condition which has not exhibited symptoms nor been treated prior to the Member's most recent enrollment date.

The CREF unit value ending March 31 rose to \$65.37 from \$64.21 on February 29.

MISSING MICROPHONE

Anyone knowing the whereabouts of the Clark 507 microphone should drop it off at Bill Lange's office in the Blake Building or call him at ext. 2782.

PERSONAL COMPUTER MAINTENANCE

In-house maintenance for IBM PCs and XT's is now available through Data Tech in Providence. For further information, contact Phil McClung, ext. 2375.

NEWSLETTER NOTICES - Please send items of interest to the oceanographic community to Anne Rabushka, editor, Co-op, ext. 2271.

NEW FACES



Johnna C. Aveiro
Graphics Technician
Graphic Services
Blake 206/x2720
F. Heide



William B. Dade
Research Assistant
Geology & Geophysics
McLean/x2782
F. Grassle



James H. Dufur, Jr.
lect. Shop Supervisor
Facilities
Iselin 142/x2483
L. Charette



JoAnn M. Fishbein
Programmer/Analyst
Systems & Procedures
573 W.H.Rd./x2879
E. Frank



Polly M. Lumping
Secretary
Geology & Geophysics
Clark 251/x2623
A. Smith



Robert H. Squires
Research Associate
Ocean Engineering
Blake/x2851
R. Ballard

PROMOTIONS AND OTHER PERSONNEL CHANGES

Recent promotions include:

DALE D. GOEHRINGER - Biology - from Research Assistant II to Research Assist. III.
TERENCE R. HAMMAR - Chemistry - from Research Asst. II to Research Asst. III.
CHANNING N. HILLIARD - O.E. - from Research Assistant II to Research Assist. III.
VIRGINIA A. LE FAVOR - Controller - from Financial Analyst/Auditor to Accounting Operations Administrator.
JOHN A. LOMBA - Facilities - from Carpenter to Senior Carpenter.

Recent reclassifications include:

CARL E. FINKENSTADT - P.O. - from Research Assistant-Computer Operator to Research Assistant-Data Processing.
NANCY R. GALBRAITH - O.E. - from Research Assistant-Oceanography to Research Assistant-Programming.

Recent appointments include:

SHIMSON BELKIN - Biology - Postdoc. Invest.
ROBERT H. SQUIRES - O.E. - Research Assoc.
PAUL E. SPEER - G&G - Postdoctoral Invest.

Recent scientific staff promotions:

YOGESH C. AGRAWAL - O.E. - from Assistant Scientist to Associate Scientist.
RAYMOND W. SCHMITT - P.O. - from Assistant Scientist to Associate Scientist.

Recent retirements include:

RALPH F. VACCARO - Biology - Sr. Scientist.



Beth L. Stone
Hostess
Food Services
Endeavor/548-9107
S. Payne/P. Thompson



Frank L. Travis
Facil. Services Asst.
Services
Clark 133A/x2522
R. Hindley

HELP DECIDE THE FUTURE OF ENDEAVOR/BUTTERY

The food service at WHOI is currently under scrutiny due to under-utilization, especially at Endeavor House. Endeavor and Buttery together cost the Institution about \$13,000 per year out of grant overhead. Is this an appropriate use of funds? Please express your opinion below and send the questionnaire to: GMPC, Redfield 2.

Food Service Questionnaire
return by May 29 to
GMPC, Redfield 2.

- 1. Do you patronize Endeavor or Buttery?
 Regularly
 Occasionally
 Never

- 2. What, if anything, keeps you away?
 Type of food
 Hours
 Price
 Other _____

- 3. Which remedy to the situation do you feel is most appropriate?
 Close Endeavor
 Close Buttery
 Continue without major change -- Endeavor
 Continue without major change -- Buttery
 Change Endeavor
(In what way?) _____
 Change Buttery
(In what way?) _____
 Don't care

4. How would you prefer to see the money used? _____

Other comments: _____

Name (optional): _____

SEWER CONSTRUCTION BEGINS IN WOODS HOLE, BIKE PATH PLANS FORMULATED

Bill McKeon, Facilities Manager, reports that sewer construction scheduled for the month of May in Woods Hole may necessitate some changes in WHOI routines. From May 8 until May 18, Luscombe Avenue and the section of Water Street up to the drawbridge will be worked on. The next step will entail Water Street from MBL to the bridge. Parking will be forbidden on Water and Luscombe Streets during this period, although parking in the Dyers Dock and Redfield Lots should not be affected. If access to the lots is denied, the School St. lot is available.

The construction company has warned that they may close Water St. to all traffic for a day or two, but the town will try to keep one lane of traffic open the rest of the time. Bill reports that he has been promised by all concerned that access for fire equipment, fuel tankers, and trucks will be arranged (as large trucks cannot negotiate the street around Eel Pond). Anyone scheduling a truck delivery during May should notify Bill immediately so that arrangements can be completed.

The shuttle will continue to run out of the village, although the Smith parking lot will be used as the pick-up point from May 11 to May 18. Travel times will be a little longer because of the circuitous route around Eel Pond. Construction in Woods Hole will end on May 24.

Bill also reports that the summer construction on the Bike Path will affect traffic on Oyster Pond Road. "I'm asking all WHOI employees to cooperate with the police and construction company to the fullest extent. We have allowed the company to store materials at our Trunk River parking area in hopes that it will speed up the process."

According to Bill, the alternate bike path during the construction will be Elm Road, Oyster Pond Road, and the access ramp at the Bike Path Bridge at Nobska Road. The police will set up a barricade at the north end of Oyster Pond Road, permitting access only to residents and WHOI employees/visitors destined for facilities on that road. A strict speed limit of 20 mph will be rigidly enforced.