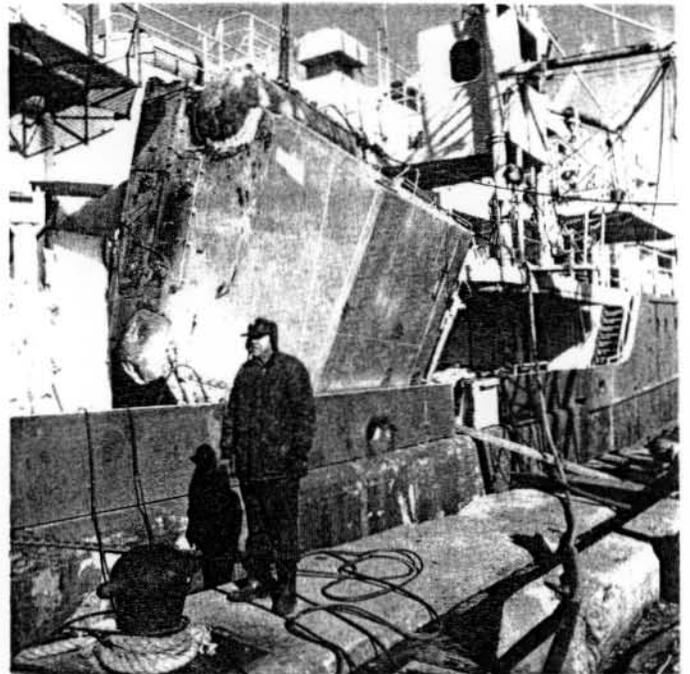
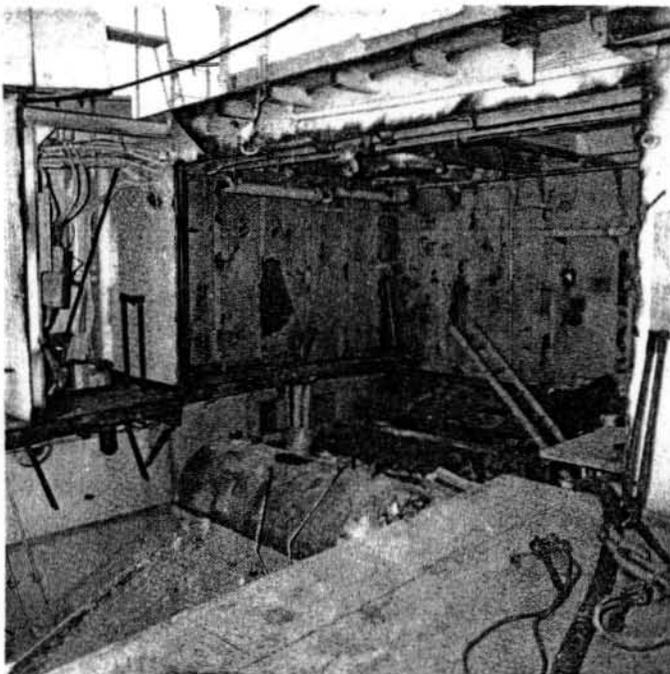




February 1979

# NEWSLETTER

WOODS HOLE OCEANOGRAPHIC INSTITUTION



ATLANTIS II was towed from Woods Hole harbor to a Fall River shipyard January 16 by a Sanchez Marine Services' tug (top left) for a major overhaul and conversion to diesel power. The smoke stack was removed (top right) and parts of the deck and bulkhead cut away (bottom left) to remove the steam engines and boilers. The bottom right photo shows one of the boilers being lifted out. Photos by Frank Medeiros.

## OCEANUS RECEIVES ADMIRATION FROM AFAR

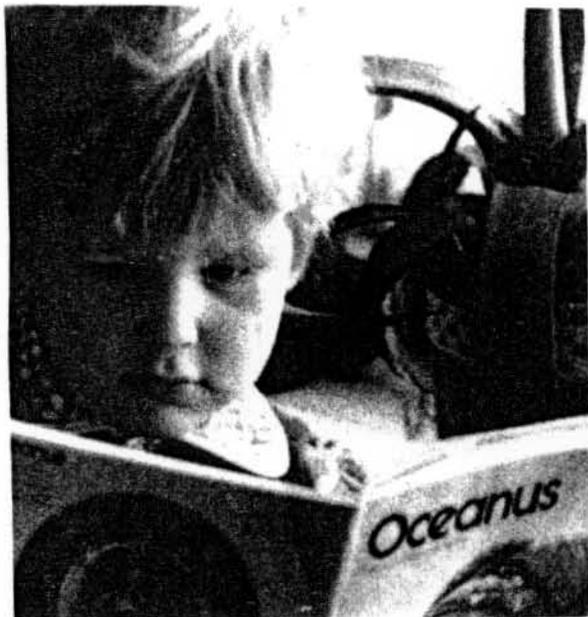
Bill MacLeish, Paul Ryan and Debbie Annan of Oceanus received a letter of praise recently from Soviet oceanographer Vladimir Sviridov of Vladivostok. Accompanying the letter, written in English, were a newspaper article (in Russian) and photographs of Sviridov at work and with his wife, of his four-year-old son looking at Oceanus, and of fellow members of the "Pacific Ocean" amateur filmmaking club in Vladivostok.

Sviridov tests submersibles and works in underwater photography. He said he was very interested in wildlife conservation and environmental protection, and eagerly shared his copies of the magazine with colleagues at the "Pacific Ocean" club. "All your illustrations received excellent marks," he noted, adding that his son "admired the animal photos and read a little bit in English."

The Soviet oceanographer also had praise for Dr. Paul Fye. "I want to express through your magazine my consolidation with the very wise ideas of Oceanographic Institute Director Paul M. Fye in his article "The Ocean World," and with the many other authors I call environmentalists as people in the most high humanistic ranks and posts of life."

Below right: Members of the Vladivostok amateur filmmaking club

Below left: Sviridov's four-year-old son Vladimir studies Oceanus



## CLARK LOBBY GAINS INTERESTING TIMEPIECE

If you've passed through the Clark second floor lobby recently you've probably noticed the unusual electric ball clock on the reception desk. Walker Cain, the New York architect who designed the Clark Laboratory, apparently didn't like the lobby clock and told Dr. Maxwell the reception area needed a more interesting timepiece. He said he would send something along, and he did - unassembled. Dr. Maxwell put the clock together, as the directions stated, in about one hour.

In case you haven't seen the new clock which arrived in January, it tells time by three rows of metal balls. The top row indicates one to four minutes, the middle row five-minute increments, and the bottom row hours. It is, without a doubt, an interesting clock!

## SIX FOREIGN VESSELS VISIT PIER IN 1978

A total of 63 calls were made to the W.H.O.I. pier in 1978 by 23 non-Institution vessels. Among the visitors were ANTON DOHRN from West Germany, WIECZNO from Poland, PES CAPUERTA SEGUNDO VIGO from Spain, and ARGUS, ALIOT and BELOGORSK from the Soviet Union.

Among the American ships to dock in Woods Hole were GYRE (Texas A & M), STATE ARROW (Martex), KINGS POINTER (NOAA), CECIL H. GREEN (USGS), JAMES M. GILLIS (U. of Miami), ENDEAVOR (URI), EDGERTON (MIT), and the cruise ship INDEPENDENCE.

## VAX COMPUTER OPENS NEW AREAS OF SCIENCE

The need for more computer memory and disc storage, greater speed and a reduction in cost prompted the Institution's purchase last fall of the VAX 11/780 computer. Manufactured by Digital Equipment Corp. and delivered to the Institution October 15, VAX cost approximately \$250,000 and has been in use since October 17 at the Clark computer center.

Carl Bowin says the Geology and Geophysics Department initiated the need for the new computer. "Several research investigations require enormous amounts of computing. We were handicapped by Sigma 7's small amount of memory available for remote computing during normal hours," he explained. "The cost per hour also limited the amount of computing we could do." Sigma 7 is the Institution's central computer.

Although VAX is an Institution facility access is restricted. Carl says a steering committee has been assigned to monitor the computer's use and to decide who should have access. "It's a very good computer for what we call number crunching and for processing data, but we're uncertain as to its ability to have large numbers of people using the machine simultaneously," he added. "We also want to preserve the Sigma 7 center."

Scientists, primarily in Geology and Geophysics and Physical Oceanography, are using the computer from terminals in their labs which are wired to the computer. VAX can also be used over the telephone at any time, as can Sigma 7. "I'm just delighted with it," Carl said. "I can now explore areas of the sciences I couldn't before."

Skip Little, manager of the computer center at Clark, says VAX is three times as fast as Sigma 7 at one-third the cost. "We've been doing useful science for G & G and P.O. practically since it came in, and we are having very good luck as far as maintenance is concerned."

Part of the new computer system is a high speed/high resolution digital plotter for plotting contour maps and other graphic data. A second component is an interactive graphics terminal with light pen, which enables the user to change graphic pictures on the screen simply by moving the pen in front of it.

The computer center at Clark was designed by Skip and built last summer for

the new computer system. The room is air conditioned and the floor is raised to allow air to circulate and to keep cables and wires safely hidden. The center, by the way, is without a name. If you have any suggestions contact Skip Little at Clark, ext. 2357.

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## LOGO DESIGNS INVITED

Don't forget to submit your logo designs for the Institution's 50th anniversary celebration, the Third International Congress on the History of Oceanography, and an assembly on current and future oceanography, all to take place in 1980. Simple sketches are welcome. Send your suggestions by mid-March to Vicky Cullen, Coop, ext. 2270.

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## WORD PROCESSING EQUIPMENT INSTALLED AT CLARK

A Wang Word Processor was installed in Clark in January, part of it in the second floor lobby next to the reception desk. In simple terms, a word processor is a specialized mini-computer for the entry, editing and printing of manuscripts and technical reports.

The processor has three parts: five terminals with keyboards and a 24-line screen for text entry and editing; two five-megabyte disc drives to store documents being worked on and a floppy disc drive to archive documents; and a 40 character per second daisy wheel printer.

To use, the draft of the document is entered and checked using one of the terminals and a copy made by the high speed bi-directional printer. Revisions can be made without having to re-keyboard the entire document. Function keys permit insertion, deletion, replacement and moving of the text. A cursor-type editor enables the user to view changes in context as they are made. Selecting the "menu" for the type of operation you wish to use - editing, printing, document filing - makes using the word processor simple.

Training in the use of the new word processing equipment is done through manuals and tutorial programs, and departments arrange use of the terminals. For further information contact Bob Groman (ext. 2469) or Hartley Hoskins (ext. 2580).



"PERHAPSATRON" LUNCHEON HONORS WILLIE DOW

Approximately 30 colleagues and friends attended the "perhapsatron" luncheon January 19 at the Carriage House for Willie Dow, who retired from the Institution the following day. The name "perhapsatron" was given to Willie's deep hydrophone by Al Carter, who said perhaps it would work and perhaps it wouldn't depending on whether Willie took the clip lead off!

Everyone had a few words to say about Willie, including Al Vine (top photo), who wore an artistic apron to remind Willie of his brush recorder. Seems Willie had a recorder years ago that used red ink, and the ink got all over everyone and everything. Al wanted to remind Willie just how terrible that recorder was! The guest of honor received the traditional aerial photograph of Woods Hole (bottom photo) and, amidst the good-natured ribbing, many good wishes for the future.

#### USGS CELEBRATES 100TH ANNIVERSARY IN 1979

The federal government's largest earth sciences research agency is celebrating its 100th anniversary in 1979. Established March 3, 1879, USGS plans to celebrate with commemorative programs, symposia, special publications and exhibits.

#### INSTITUTION PHOTOGRAPHER HONORED

Frank "Chic" Medeiros was one of eight outstanding Portuguese-American newspaper, radio and television personalities from southern New England honored February 16 at the *Jornal De Fall River's* first annual "Portuguese-American of the Year" award dinner in Swansea. Sen. Paul E. Tsongas was the main speaker and Fall River Mayor Carlton M. Viveiros the recipient of the first "Portuguese-American of the Year" award. Approximately 1,200 persons attended the award dinner.

Chic says he was very honored but wished he had had his camera. *"I felt like I was nude up there with no camera. There were some great shots and the TV crews there missed them. Naturally all the photographers were sitting down."*

#### ROSS WINS MEDALS AT SENIOR OLYMPICS

Congratulations are in order for Dave Ross, who won three bronze medals in speed skating in the 40-45 category at the Senior Olympics February 17 and 18 in Lake Placid, NY. Dave placed fourth in the 500 meter race and third in the 1,000, 1,500 and 3,000 meter races.

More than 80 skaters from Canada, Norway and the US participated in the meet, held on the Olympic speed skating oval. An ex-world champion and Olympic gold medalist also competed. *"Fortunately they weren't in my category!"* Dave added. He has competed the past four or five years but missed last year's meet due to illness and says this year was *"sort of a comeback"* for him. Dave was determined - the temperature February 17 was -20 Fahrenheit.

**KIRKPATRICK DEATH** - Word has been received of the death of physicist Donald E. Kirkpatrick, a senior scientist at the Institution from 1942 to 1945. He was 74.

## FUNDING ANNOUNCEMENTS

The following are recent funding announcements for scientific support.

### From the National Science Foundation:

- to John Whitehead for "Laboratory Studies of Buoyancy-Driven Flows," \$47,200;
- to Bob Ballard and Skip Marquet for "East Pacific Rise Program at 21 Degrees North," \$91,400;
- to Mike Mottl for "Geochemical Studies of Hydrothermal Alteration in the Oceanic Crust," \$38,000;
- to Carl Bowin for "Processing and Analysis of Seismic Reflection Observations for the Banda Sea Region," \$17,000;
- to Jack Whitehead for "Convective Instabilities in Low Reynolds Number Flow," \$30,000.

### From the National Oceanic and Atmospheric Administration:

- to Susan Peterson for "The Economic Confrontation of Limited Entry with the Free Enterprise System," \$3,950;
- to Ralph Vaccaro for "The Environmental Response of Marine Bacteria to Waste Disposal Activities at Deep Water Dump Site 106," \$46,040.

### From the Office of Naval Research:

- to Tom Sanford for "Acceleration to Development and Testing of an Expendable Temperature and Velocity Profiler Based on the Principles of Geomagnetic Induction," \$20,495;
- to John Ewing for "Rivera Ocean Seismic Experiment (Project ROSE)," \$169,320.

### From the Naval Research Laboratory:

- to Doug Webb for "227 Hz Sound Source," \$31,887.

### From the Department of Energy:

- to Gabe Csanady for "Coastal-Shelf Transport and Diffusion," \$170,000.

### From Sandia Laboratories:

- to Vaughan Bowen for "Radionuclide Distributions in Deep Ocean Sediment Cores," \$73,567.

### From the University of California:

- to Bob Spindel for "Acoustic Tomography," \$3,000.

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### FREE NON-CREDIT MATH COURSE OFFERED

A sixteen-week noncredit math course, "Introduction to Math for People in the Sciences, Part II," is being offered free of charge to W.H.O.I. and USGS employees. The course will begin March 5 and will meet from 1630 to 1800 Mondays and Thursdays in Redfield 3-04. Don Bankston is the course instructor. For further information contact Don at W.H.O.I. ext. 2756.

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### ARCHIVES WANTS OLD LAB AND OFFICE MATERIALS

The Archives is looking for old instruments and equipment, special glassware, old charts or maps, notebooks, logs, unusual specimens, special files, photographs, drawings, correspondence and other items from those retiring or leaving the Institution.

Bill Dunkle (DESC, ext. 2471) reports that many early experiments and notes have been lost because no one thought they were of interest. "I know it takes time to sort through old files and items piled on the back of shelves or under counters but please make the effort," Bill adds. "This Institution is unique in its purpose and development of sea-going scientific gear. How it developed is just as important to those who follow as Orville and Wilbur Wrights' aircraft or Thomas Edison's electric light bulb."

Through the efforts of Dave Owen and Rodman Davies more than 10 underwater camera systems and components used at W.H.O.I. during the early 1940s have been obtained.

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### SCIENTIST RECEIVES TENURE

Bob Spindel in Ocean Engineering recently received tenure.

## PROMOTIONS AND OTHER PERSONNEL CHANGES

Recent promotions include:

Eleanor M. Botelho - Controller - from Senior Accounting Clerk to Staff Assistant, Accounting Services.

Lynette Brady - Chemistry - from Research Assistant I to Research Assistant II.

Thomas D. Bullen - Geology & Geophysics - from Research Assistant II to Research Assistant III.

Charlotte M. Cohen - Purchasing - from Staff Assistant to Buyer I.

Aganoris Collins - Ocean Engineering - from Research Assistant I to Research Assistant II.

Alan C. Davis - Chemistry - from Research Assistant II to Research Assistant III.

Carolyn J. Dean - Geology & Geophysics - from Research Assistant I to Research Assistant II.

Mark R. Dennett - Biology - from Research Assistant II to Research Assistant III.

Bruce P. Deslauriers - Ocean Engineering - from Laboratory Assistant I to Laboratory Assistant II.

George G. Ellis - ALVIN/LULU Operations - from Research Assistant III to Deep Submergence Vehicle Pilot.

Harlow G. Farmer III - Geology & Geophysics - from Research Assistant II to Research Assistant III.

Donna M. Garcia - Personnel - from Secretary I to Secretary II.

Stephen R. Gegg - Geology & Geophysics - from Research Assistant II to Research Assistant III.

Margaret Goreau - Geology & Geophysics - from Research Assistant II to Research Assistant III.

Carl W. Gustafson - Ocean Engineering - from Laboratory Assistant II to Research Assistant I.

Vicki L. McAlister - Biology - from Research Assistant III to Research Associate.

Kenneth R. Peal - Ocean Engineering - from Research Associate to Research Specialist.

Florence T. Pineault - Controller - from Senior Accounting Clerk to Accounting Assistant.

Marcia W. Pratt - Chemistry - from Laboratory Assistant I to Laboratory Assistant II.

Warren J. Sass - Ocean Engineering - from Research Assistant II to Research Assistant III.

Frederick J. Schuler - Ocean Engineering - from Research Assistant II to Research Assistant III.

Deborah K. Shafer - Chemistry - from Research Assistant II to Research Assistant III.

Ann Spencer - Physical Oceanography - from Research Assistant II to Research Assistant III.

Margaret M. Sulanowski - Chemistry - from Research Assistant II to Research Assistant III.

William E. Terry - Ocean Engineering - from Research Assistant II to Research Assistant III.

Robert J. Thayer - Ocean Engineering - from Research Assistant II to Research Assistant III.

Sandra M. Tonge - Geology & Geophysics - from Secretary II to Secretary III.

Bonnie L. Woodward - Biology - from Laboratory Assistant II to Research Assistant I.

Recent transfers include:

Robert G. Lavoie - from Research Assistant I, Chemistry, to Research Assistant I, Physical Oceanography.

Recent retirements include:

Willard Dow - Research Specialist, Ocean Engineering.

Jeannette W. Reeves - Accounting Clerk, Controller.

M. Dorothy Rogers - Laboratory Assistant, Biology.

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## ROSS NOMINATED TO LAW OF THE SEA COMMITTEE

Dave Ross has been nominated by the US State Department to serve on the Advisory Committee on the Law of the Sea. Dave will be a member of the Freedom of Scientific Research Subcommittee.

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NEWSLETTER NOTICES - Please send photos, notices and items of interest to the oceanographic community to Shelley Lauzon, Editor, Coop, ext. 2271.

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## FUTURE OCEAN RESEARCH FREEDOM QUESTIONED

The portion of the proposed Law of the Sea treaty dealing with scientific inquiry within the 200 mile economic zone and on the high seas was the subject of heated discussion at the January 29 Journal Club meeting.

Henry Herman, special assistant attorney general for the Commonwealth's offshore claims in the Supreme Court, spoke on traditional rights to study science in the 38 percent of the ocean being put aside under the proposed treaty. Herman said not only are certain rights in the 200 mile zone at issue but the language of the treaty places scientific work, in certain circumstances, under the control of coastal and land-locked states.

Herman said scientific inquiry is apparently not a high priority in the State Department's treaty negotiations, and said the State Department cannot be depended upon to protect the rights of US scientists or to adequately negotiate future rights now protected by treaty. He urged US scientists to take notice of what could happen should the language of the draft treaty be accepted, and was critical of the complacency of the scientific community on this issue. Contact Jay Moore for more information.

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## NASA NAMES SPACE SHUTTLE "ATLANTIS"

One of the first four space shuttles, the nation's next generation of manned spacecraft, will be named "Atlantis" after the Institution's first research vessel. The other shuttles, also named after famous ships of discovery, will be "Columbia," "Challenger," and "Discovery." The first, "Columbia," is due off the production line in March and is scheduled to make its first flight in 1980. No date has been set for production of "Atlantis."

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## BERGGREN VISITING PROFESSOR IN INDIA

Bill Berggren spent mid-November to mid-December in India as the C.V. Raman Distinguished Visiting Professor at the University of Madras. Bill gave five lectures and travelled throughout India visiting and lecturing at universities and research institutions, including the Oil and Natural Gas Commission and the Geological Survey of India.

## NEW FACES



James K. Hadcroft  
Lab. Asst.  
O.E./G. Power  
11 School St./x2435



Molly D. Allison  
Res. Asst.  
G&G/R. Stephen  
Clark 243/x2827



David L. Magid  
Res. Asst.  
O.E./M. Rosenfeld  
Swift/x2764



Scott M. Gallager  
Res. Asst.  
Bio./J. Ryther  
ESL/x2538



Douglas R. Mook  
Joint Prog. Student  
O.E./G. Frisk  
MIT 36-613/x4029



Eric W. Henderson  
Guest Investigator  
Bio./W. Smith  
Swift/x2764

#### ONR'S SCHULMAN RECEIVES NAVY SERVICE AWARD

Dr. James H. Schulman, acting technical director of the Office of Naval Research, was awarded the Navy Distinguished Civilian Service Award January 26 upon his retirement from government service.

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#### BIGELOW FIRE ALARM CHANGED TO BELL

The fire alarm signal in Bigelow has been changed from an automobile-type horn to a loud bell. The system is an internal alarm only and is designed to warn occupants.

Jim Mitchell reports that anyone discovering a fire should (1) use local fire extinguishers to suppress the fire, (2) sound the internal fire alarm, and (3) use the fire alarm located outside to the left of the Smith Laboratory front doors or telephone the operator and report the fire. The sequence of actions may require your own judgment and the assistance of others. For your safety as well as the safety of others take a moment to mentally rehearse steps to take in case of fire or other emergency.

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#### SOVIET OCEANOGRAPHERS VISIT INSTITUTION

Ten Soviet oceanographers visited the Institution the week of February 12-16 for scientific discussions and information exchange. Peter Rhines was host for the group, which included theoreticians from the Marine Hydrophysical Institute in Sevastopol and scientists from the Moscow Institute of Oceanology.

Three groups of Soviet scientists arrived in the US February 4 for scientific discussions and information exchange. One group visited Washington to plan data exchange, the second visited the National Center for Atmospheric Research (NCAR) in Colorado to conduct numerical modeling experiments, and the third visited NCAR, Scripps Institution of Oceanography, MIT and W.H.O.I. The visit was held in connection with POLYMODE.

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#### WIVES' COFFEE HOURS SCHEDULED

Coffee hours for wives of Institution employees will be held from 10-11:30 a.m.

March 6 and April 10 at the Carriage House. Contact Barbara Spindel at 563-5272 for further information.

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#### NUMERICAL PEBBLE MAKES INTERESTING POEM

The following anonymous poem appeared in the January 19 issue of Polymode News:

I tossed a pebble into a pond.  
It went splash.  
Then someone gave me a large computer.  
After great effort and ingenuity,  
I learned to toss a numerical pebble  
into a numerical pond.  
It went numerical splash.  
So now I understand splash.

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#### OCEANOGRAPHIC SHIP NOTES

OCEANUS departed Woods Hole 6 February for the Straits of Florida and Cape Hatteras on Voyage #55 for the Biology Department. Scientists are determining what deep ocean midwater fishes of tropical (Caribbean) origin are carried north in the Florida Current. The ship is due back in Woods Hole 1 March.

LULU and ALVIN departed Panama 6 February to continue studies of warm water vents and spreading centers on Voyage #102 to the Galapagos Rift.

KNORR arrived in Honolulu 8 February concluding Leg XIII of Voyage #73 from New Zealand to Hawaii. The ship will remain in Honolulu for an extended layup.

Conversion and repair work continues on ATLANTIS II at Sanchez Marine Services' shipyard in Fall River (see cover). The ship is scheduled to return to service in May.

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#### HAWAIIAN RESEARCH VESSEL DISAPPEARS

The R/V HOLO HOLO, a 96-foot steel hulled vessel chartered to the University of Hawaii, disappeared off Hawaii in December. A 10-day air-sea search produced only an empty equipment box. Gary C. Niemeyer of UH and Robert L. Charnell of NOAA were among the 10 presumed lost at sea. The ship was studying ocean thermal energy conversion.