



NEWSLETTER

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QUISSETT CAMPUS

The model of the first major building planned for the Quissett Campus is now on display in the lobby of the Redfield Building. It will be four stories with space totaling 80,000 square feet, twice that of Redfield. Usable space for laboratories and offices in the two-wing building will be approximately 56,000 square feet, making the percentage of working space 70 percent. Sixty-five feet from front to back, the building will consist of two wings, each about 125 feet long.

Although arrangements are not final, plans now call for expansion for six research groups. Physical Oceanography, taking such groups as are now housed in trailers, will occupy the first floor. One wing of the second floor will have Graphic Arts; the other half will have offices for administration including Dr. Fye and the "Front Office", payroll, and comptroller. Third floor has been set aside for Geology and Geophysics, bringing more of G&G together. Fourth floor wings will have "wet labs" for Biology and Chemistry Departments.

Basic arrangements for the building have been worked out between the Quissett Campus Building Committee and the architects, Walker O. Cain & Associates. The Committee hopes that construction will start in the spring of 1972. Occupancy is planned for summer, 1973. Cost of construction: approximately \$5,000,000.





TWO MEMBERS OF THE STAFF RETIRE

Two familiar figures will be missed at W.H.O.I. when they leave the Institution December 31, both having requested early retirement to have time for other activities and pleasures postponed during their years in Woods Hole.

Edward J. Tully, Chief Mate of the KNORR, will retire after nearly 30 years at sea. Although he has a Master's degree in Business Administration from N.Y.U., Captain Tully, as he is known here, went to sea to get first-hand experience of the ocean to write about it. He remained at sea for 30 years, becoming a Chief Mate and Master of off-shore vessels. He joined the Institution in January 1963 to become First Mate of the ATLANTIS II and then went to the KNORR in the same capacity when she was put in commission.

Leo C. Houston of Cotuit, who joined the staff in June 1959, working with Karl Schleicher as an electronic technician, will no longer commute daily to Woods Hole either. He has been responsible for the continued success of the salinometer that was developed by Karl's group in Physical Oceanography.

They will both be missed by their colleagues and many friends.



SHOP PEOPLE MAKE W.H.O.I. #1

Very little is said or known about the support personnel of the Institution, especially those in the shops. Scientists and technicians preparing for a cruise turn to the shops for help in getting their equipment in order. Many of the men in the W.H.O.I. shops come up with innovations which contribute greatly to the success of the research at sea.

This last year W.H.O.I. shop personnel devised the new control system for the electro-magnetic coupling on the forward drive shaft for the KNORR. Not only did they work out the idea, but they also built the complete system. Having spent several thousands of dollars studying this identical problem on one of its research vessels, Scripps Institution in La Jolla has decided to duplicate the installation which W.H.O.I. designed.

The Institution sent Scripps complete drawings so all that was necessary was to purchase the various pieces and wire up the system. In a great step indicating the faith that Scripps has in shop personnel it has contracted with W.H.O.I. to build the control panel for KNORR's sister ship on the West Coast, the MELVILLE.

This is a great vote of confidence to the men in W.H.O.I.'s shops. When the scientist receives praise for work well done on a cruise, it is praise for the Institution. Here is another example of the great range of talent in all groups in Woods Hole.

SCROOGE WON'T BE HAPPY BUT

The Christmas spirit was certainly present in giving so generously to the UNITED FUND this year. Thanks to all who gave, W.H.O.I.'s contribution has passed all previous records, with a sparkling total of \$7,622.

The goal for the Town of Falmouth, of which Woods Hole is such a small part, was set at \$45,000, based on a population of 16,326 people, tallying up to about \$3.00 per person. W.H.O.I. employees number 660, yet they gave 17 percent of the total for the Town of Falmouth.

Dean Bumpus says, "I wish I could go around to thank each of you for your generous gift to the United Fund, but, since I can't I would like to use the Newsletter to say 'Thanks for a great job.'"

STAFF COMMITTEE ELECTION

Ballots were sent out December 15 for the election of four new members to the W.H.O.I. Staff Committee, which is presently ending its first year of existence. Eligible to vote are all members of the resident technical and scientific staffs and all other employees who have worked at W.H.O.I. full-time for five years.

Ballots should be returned by Tuesday, January 4th to Kathy Daly, Smith Building Rm. 301. Counting will be done on Wednesday, January 5th and returns will be made known immediately.



Bob Frazel wishes to thank everyone who was a member of the Institution's Christmas Party Committee and those whose attendance helped make the dance such a tremendous success.



DID YOU KNOW?

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---the Institution pays taxes to the Town of Falmouth on all property that is not used for research purposes. If the two public utilities are left out of the picture--the New England T & T and Cape & Vineyard Electric--W.H.O.I. pays the second highest amount in taxes to the community. Merlin Realty Trust at the Falmouth Plaza is number one and W.H.O.I. number two, with W.H.O.I. paying \$24,702 in taxes for 1971.

---the Institution has a Group Life Insurance Program entirely separate from the Pension Program. It is voluntary. Full-time employees become eligible upon completion of three months' continuous active service. W.H.O.I. pays part of the premium so that the cost is 40 cents per \$1,000 per month.

UNOLS CARRIES THE BALL

The newly formed UNOLS (University-National Oceanographic Laboratory System) has held its first two meetings, both of them on the West Coast. Based at W.H.O.I., UNOLS has Dr. Arthur Maxwell as Chairman and Captain Robertson Dinsmore as Executive Secretary.

The original 18 charter members of UNOLS met at La Jolla with representatives from other institutions to form its Advisory Council. Attending were sixty-eight participants, representing thirty-six academic institutions and seven Federal agencies. The new Advisory Council, selected at this meeting from a list of forty nominees, consists of John V. Byrne, Oregon State University; John P. Craven, University of Hawaii; Charles L. Drake, Dartmouth College; David W. Menzel, Skidaway Institute; Robert A. Ragotzkie, University of Wisconsin; Henry M. Stommel, M.I.T.; Warren S. Wooster, Scripps Institution.

The Council held its first meeting on the 6th of December in San Francisco with the purpose of establishing ground rules for the cooperative use of ships, aircraft, submersibles, and technical personnel. The operations of non-government vessels now exceed \$20,000,000 annually.

Because research and academic institutions need ships and aircraft but cannot afford to buy or lease for their research, the UNOLS charter institutions are seeking ways to make vessels, planes, and personnel available to member institutions with staffs over 100. A subject of common interest to all participants, therefore, was the development of a research fleet, with UNOLS support for design and construction. Some of the institutions brought forth their need for coastal research vessels which could offer blocks of time for their experiments aboard. The Council also noted that although information on larger vessels is steadily growing, more data on coastal vessels sixty-five feet and under is urgently needed. Only five of these vessels have direct Federal support.

Considerable discussion was generated during the meeting about the precise role of UNOLS in coordinating research functions. UNOLS will first use questionnaires and fact-finding task-forces to assess U.S. oceanographic resources afloat.

The UNOLS efforts are underwritten by the National Science Foundation and the Office of Naval Research, the two principal funding agencies for ship time awarded to participating institutions.

--GOSNOLD, which covered 15,647 miles operating independently and as escort for LULU and ALVIN off the Virginia and Carolina Capes, the Florida coast, the Bahamas, and in the New York Bight and the Gulf of Mexico.

Even the ASTERIAS, a small 40-foot wooden trawler used primarily for local off-shore work, got into the distance act, logging an estimated 3,300 miles which included a November sail from Woods Hole to New York Bight to obtain research samples.

In all, the larger ships steamed a total of 132,559 miles, making 1971 the second busiest year for oceanic operations by the Oceanographic Institution and nearly 30,000 miles longer than the 102,787 miles logged in 1970. The only year the figure was surpassed was in 1965, when the research vessels traveled 139,971 miles, with both the CHAIN and ATLANTIS II participating in the International Indian Ocean Expedition. The then-new ATLANTIS II made an around-the-world research cruise of 50,041 miles.

The last cruise of 1971 was made by the ATLANTIS II which left December 9th on a buoy run into the Gulf Stream. The twelve-day cruise recovered buoys set by the Physical Oceanography Department and to place new moorings for continuing survey of the currents in the area. James Gifford was chief scientist aboard, heading the twelve-man research team.

All W.H.O.I. vessels are now berthed in Woods Hole for the holidays. Next year, such efforts are on tap as a cruise off the coasts of South America and Africa by the ATLANTIS II for a geophysical and geological study of the Eastern Atlantic Continental Margin, funded by the National Science Foundation (NSF) as part of the International Decade of Ocean Exploration (IDOE); an Atlantic cruise by the KNORR for GEOSECS, the Geochemical Ocean Sections Study, a project recently launched by NSF as part of the IDOE in which the Oceanographic is playing a major role, and which will provide information about levels of pollutants and of fission and waste products in the sea, oceanic mixing, and the production of organic matter in the oceans; participation by Oceanographic Institution scientists on cruises of other research ships, such as the deep-drilling GLOMAR CHALLENGER; and even an expedition to the African Lakes in which the Oceanographic's flag will be flown from local craft used for the project.

W.H.O.I. WINDS UP SECOND-BUSIEST
YEAR AT SEA

The Oceanographic concluded the second-busiest year of oceanic operation in its 41-year history when the research vessels KNORR and ATLANTIS II put into Woods Hole (December 21) for the holidays. The two ships were the last of the small fleet to dock at the Institution pier within the past month as they wrapped up their last voyages of the year, the ATLANTIS II returning from the North Atlantic and the KNORR arriving from the Mediterranean.

Activity at the Oceanographic in 1971 featured a number of firsts, including the longest cruise in Institution history, the return of the research submarine ALVIN to deep-diving operations, and the first trans-Atlantic crossing of the newest ship, the KNORR, built by the Office of Naval Research and turned over to the Institution in April, 1970.

Conducting research for the departments of biology, chemistry, geology and geophysics, ocean engineering, and physical oceanography in waters around the world, the ships recently returning to Woods Hole included:

---CHAIN, which steamed some 77,000 miles in her 20-month circumnavigation of the globe in the longest cruise in Oceanographic Institution history. In the last year, CHAIN covered 43,268 miles while operating in the Indian Ocean, Red Sea, Gulf of Aden, Java Sea, Pacific Ocean, Gulf of Mexico, and the North Atlantic.

---KNORR, which covered 30,700 miles in the North Atlantic and Mediterranean, operating off the coasts of England, Portugal, Spain, Sicily and the Canary Islands. Her four-month voyage concluded at the end of the year represented the first trans-Atlantic cruise for the unusual vessel, which features propulsion by cycloidal propellers fore and aft and lacks such customary nautical trappings as a rudder and a ship's wheel. It also marked the success of a number of in-house revisions made to the ship's propulsion system prior to KNORR's achieving the operational standard required for oceanographic research.

---the research submarine ALVIN and its mother ship, the catamaran LULU, which in the North Atlantic and the Caribbean covered 6,861 miles and conducted 82 research dives in depths up to 6,000 feet. ALVIN, which accidentally sank in nearly a mile

of water some 120 miles south of Cape Cod in October, 1968, was recovered the following August and rebuilt at the Oceanographic Institution. The work was concluded in May and, following test dives that month and in June, the research sub was returned to service.

---ATLANTIS II, which steamed 36,083 miles in the Atlantic, operating off the coasts of Brazil, Argentina, South Africa, the U.S., Virgin Islands, Bahamas, and Bermuda.