The 65-foot R/V BAY EAGLE joined the Institute's research fleet in February of 1987.

The BAY EAGLE Joins the Fleet

The Institute has a new flagship, a 65-foot Camcraft christened the R/V BAY EAGLE.

Vessel Operations Supervisor, George Pongonis, describes the vessel as a modified oil company crew boat. "This vessel is very well suited for our present work in geological oceanography and benthic ecology. It is a very similar vessel to one used by the University of Maryland for Chesapeake Bay studies for over ten years," says Pongonis.

Its primary mission at present is deployment of remote sensing equipment like the Institute's benthic camera and tripods, the side scan sonar and other equipment used in benthic boundary layer research. Prior to acquiring the BAY EAGLE, VIMS geologists and benthic ecologists were required to use a variety of vessels to accomplish their work.

Acquired in February of 1987, at a cost of approximately $200,000, the vessel spent almost three months being converted from its previous use of providing mail and passenger transport services between Tangier Island and the mainland. The vessel now has a working wet lab, and a large work area for sophisticated electronics including microcomputers and the side scan sonar console. It also can accommodate up to seven scientists and vessel staff for extended cruises covering several day periods.

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Aircraft Overhaul
Gift of Lewis Glucksman

In December of 1985, Mr. Lewis L. Glucksman made a gift of $50,000 to VIMS making possible the overhaul of the Institute's airplane, a U-6A deHaviland Beaver, and the acquisition of scientific instrumentation.

The aircraft, built in 1953, had been on loan to VIMS from the U.S. Navy from 1975 to 1986. Because of its usefulness as a research tool, the age of the aircraft and the improvements in flight instrumentation and equipment over the period of time the Institute had used it, a decision was made in 1985 to overhaul the Beaver if VIMS could acquire title. In 1986, through the efforts of Congressman Bateman and Senator John Warner, the title to the plane was transferred to the Institute.

Overhaul work was not begun until the fall of 1986 because the formal transfer process required almost six months to complete. Through Mr. Glucksman's generosity, the Beaver has experienced a complete engine and propeller overhaul. New flight instruments, communication and navigation radios, and soundproofing have been installed. The aircraft passed inspection for compliance with Federal Aviation Administration safety standards in March and has been in service since.

The Beaver is used extensively in cownose ray, sea turtle, marine mammal and shoreline erosion studies among others. Its low air speed makes it an ideal platform for aerial photography.

In addition to supporting the overhaul of the airplane, Mr. Glucksman's gift also made possible purchase of a spectrophotometer for water quality analyses and nutrient concentration determinations of soil, sediment and water samples; a microscope projection system for simultaneous examination of highly magnified microslides by several individuals; a wind measurement system to replace an aging one that was unable to withstand extreme wind conditions; and a personal computer and software to support the work of the Institute's resource economist.
Visiting Scientist Program Report

Beginning in 1985, Sovran Bank provided gift support for the Institute's visiting scientist program. This generosity has made it possible for VIMS to establish a formal program to bring outstanding scientists from other centers for research and education to the Institute.

In 1986, the Institute also began receiving funding from the Edmondson Foundation (established by Dr. and Mrs. William P. Edmondson) for this program.

Eleven scientists have participated in this program between January of 1985 and July of 1987. Six scientists have come from countries other than the United States and represent such varied fields as ichthyology, estuarine botany and sedimentology to mention a few.

Among the visitors in 1986 was Dr. Keith Dyer from the Institute of Oceanographic Science near Liverpool, England who participated in the New Port Island study in the James River. This important study investigated the water circulation patterns in the lower James River and Hampton Roads and how they might be affected by placing a man-made island on Hampton Flats off of Newport News Point. Significant changes in those circulation patterns could adversely affect the James River oyster seed beds and oyster production in Virginia.

Dr. Dyer, who is noted for his studies of the mechanics of currents, found his stay at VIMS exciting. He noted during an interview that appeared in The Times-Herald that "The multidisciplinary aspect of the operation here (at VIMS) is exciting. I'm afraid that's something we don't have our act together on in England."

As a result of the visit of Dr. N. Labblish Chao of the Universidad do Rio Grande, Dr. John Musick of the VIMS faculty and Dr. Chao were able to develop a proposal to the Agency for International Development. The project would be for a three-year study of coastal fishery recruitment processes in southern Brazil. If funded, it would provide the Institute's faculty an opportunity to examine a large estuarine system similar to the Chesapeake Bay; thus, broadening their base of knowledge and giving them another perspective for viewing recruitment processes in an estuarine environment.

Dr. Perkins, in commenting on the Visiting Scientist Program, noted that the faculty committee which oversees the program has done an excellent job of using private gifts as a catalyst. He stated that in a recent letter, "With a combination of good planning and management and a little good fortune, they have stretched the available funds and encouraged program participants to take advantage of other funding sources making it possible for more scientists to participate."

The scientists who have participated in the visiting program are:

1984-85
Dr. Walter F. Bohlen
Associate Professor
Department of Marine Science
University of Connecticut
Groton, Connecticut

Dr. William Cooper, Chairman
Department of Zoology
Michigan State University
East Lansing, Michigan

1985-86
Dr. Keith R. Dyer
Institute of Oceanographic Sciences
Bidston Observatory
Birkenhead
ENGLAND

Mr. Samuel Felton
Fisheries Research Institute
University of Washington
Seattle, Washington

Mr. Peter H. Wolf
New South Wales 2022
AUSTRALIA

1986-87
Dr. Jens Borum
University of Copenhagen
DENMARK

Dr. Labblish Chao
University of Rio Grande
BRAZIL

Van Engel Fellowship Fund
Established

Willard A. Van Engel, professor of marine science, emeritus, has made two gifts totaling $110,000 and an additional commitment in his estate plans of $200,000 to the Willard A. Van Engel Fellowship Fund for marine science research and education.

Established in 1985, the income from the permanently endowed fund supports a graduate student of outstanding ability in research at VIMS.

The Van Engel fellowship is the first in the country for a graduate student specializing in crustacean studies. Professor Van Engel said he hopes his interest in the program will encourage other donor support, and that the number of fellowships awarded many eventually be increased.

The fellowship recipient's research is expected to contribute to an understanding of the blue crab or other commercially valuable crustaceans found

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Unrestricted Gifts Meet A Variety of Needs

Unrestricted gifts provide support for a variety of needs at the Institute. These gifts provide funds to purchase and repair equipment, for student assistance, to meet special needs including establishment of a faculty recognition award or start-up money for the VIMS Aquarium Bookstore, and to make possible ongoing private fundraising operations.

A primary area of emphasis for the expenditure of unrestricted gift funds is purchases of scientific instrumentation and equipment. Science is an equipment-intensive enterprise. Today's researchers benefit from a vast array of precision laboratory and field instruments and equipment. In addition to the equipment purchases noted in other articles in this newsletter, a significant portion of unrestricted gifts is used to bridge the gap between state and federal support for equipment and the needs of the Institute's researchers. Between 1985 and 1987, $19,727 was spent on equipment purchases from those funds.

Examples of some of the equipment purchased are as follows:

- Solar monitor with auto cassette interface ($920) - this remote field unit is used in Submerged Aquatic Vegetation studies to monitor the amount of light reaching the plants over a period of time;
- Laboratory flow hood ($3,798) - this unit is a biological transfer cabinet used to maintain sterile conditions in invertebrate cell culture research;
- Refrigerated bath ($2,500) - the bath makes possible controlled rate freezing of oyster and clam larvae and gametes in cryopreservation studies. Use of this unit has increased survival rates for larvae to 95%; and
- Work/Survival suit (3) - these suits protect researchers from the elements while performing such tasks as trawl surveys during the winter months. They incorporate flotation and insulation features in the event that a person falls overboard.

Equipment repairs supported by private funds between 1985-1987 amounted to $4,243. The largest expenditure in this category was $3,824 for repair of a spectroradiometer which is used to measure underwater light quality with regard to growth of submerged aquatic vegetation.

Student assistance has taken two main forms, assistantship support and professional development. The graduate students at VIMS are important members of the research teams. It is occasionally necessary to fund assistantships from gift income to provide them with continuing support. This is especially true in terms of providing funding between the end of a research grant or contract and the start of another. In 1986-87, two students received $4,762 in assistantship support.

Also important to their educational experience is the opportunity for students to participate in professional conferences. Where appropriate, graduate students are encouraged to present professional papers on their research. In 1986-87, two students received supplemental financial support in the amount of $809 to attend conferences and present papers.

Occasionally, students require supplemental funding for field research. This past year an international student received $517 from unrestricted funds for travel to his native country, the Bahamas, to conduct thesis related research.

In February of 1987, the Institute's first faculty recognition award for excellence in teaching was presented to Dr. John P. Ruzek. Funding for the award came from unrestricted gifts. This award will be presented annually with teaching being recognized in odd numbered years and research in even ones. The award consists of a plaque and a $500 stipend.

With the development of the VIMS Aquarium has occurred the opportunity to establish a small gift shop. Seed money in the amount of $1,057 was loaned from private funds to set-up the shop. The gift shop offers VIMS and William and Mary tee shirts and sweatshirts, baseball caps with VIMS Aquarium emblazoned on them, books on marine-related subjects and other items.

The development program continues to make progress. It is dependent on gift income to support development of brochures, mailings and donor recognition. In 1986-87, $2,428 was expended in unrestricted funds for those purposes.

Donated Equipment - A Boon To VIMS

During the past two years the Institute has received five gifts of equipment valued at $82,310. The gifts came from two companies and three individuals.

In July of 1986, Mr. James Brewitt gave VIMS a wide array of commercial trawl fishing gear. Included in his gift was a split winch-combination net reel, gallow frame, towing blocks, mast and boom, hydraulic system, running rigging and net doors and hardware. This gift provided the Vessel Operations staff and fisheries scientists with an array of trawl equipment to use in supporting the monthly trawl surveys. Of special note is the split winch-combination net reel prototype which was developed by VIMS staff.

The Albano family of Virginia Beach has been generous to the Institute. Mr. James A. Albano, Jr. and his father James A. Albano, Sr. provided Vessel Operations with a wide range of shipboard electronics, a 20kw Onan Generator and equipment including a Plath windlass. Their gifts in the spring and fall of 1986 have helped the Institute in equipping its vessels to better support the research and educational programs.

Through the generosity of Marine Electronics of Hartfield, Virginia the Institute acquired a Furuno Dual Frequency Echosounder and a King Color Video Sounder in 1985. The Furuno equipment is a commercial unit for work with pelagic fish on the continental shelf. It incorporates a recording system to produce a paper record for use by the Institute's fisheries scientists.

In 1985, the Environmental Equipment Division of EG&G International, based in Waltham, Massachusetts, helped to enhance the research capabilities of the Institute's geological oceanographers. EG&G manufactures the side-scan sonar system purchased by VIMS in 1984 with a generous gift from Mr. Lewis Glucksman. The company expanded the capabilities and flexibility of the side-scan system through a gift of additional equipment. It is now possible for VIMS scientists to perform surveys from vessels as small as twenty-five feet, whereas previously they were required to use a specially equipped 44-foot Thompson Trawler.
Local Artist Donates Marine Models

On April 16, 1986, the Institute received the first of fourteen life-size, museum-quality, fiberglass marine animal models from Mr. Peter L. Foley to advance marine education efforts through the VIMS Aquarium.

These models, twelve of which have been delivered, have an estimated value of $250,000. The specimens on display include a killer whale, bottlenose dolphin, southern stingray, big-eye thresher shark, manta ray, dwarf sperm whale, pilot whale, great white shark, mako shark, and a skate.

The VIMS Aquarium, by nature of its modest size, is unable to display live specimens of the larger, more dramatic marine animals found in the Chesapeake Bay and Virginia’s oceanic waters. The models allow the Aquarium to display these animals as static exhibitry.

Similar to those currently on display at the Monterey Bay Aquarium in California, the models are suspended from the ceiling in natural swimming positions.

Aquarium Curator Joe Choromanski feels the models add significantly to the program he is developing. "We are absolutely delighted with Pete’s generosity and the quality of his work. Only the big aquariums are generally able to offer the public this type of educational experience," says Choromanski.

The VIMS Aquarium is located in the lobby of Watermen’s Hall. It presently offers the marine models, seven large aquaria representing a diversity of marine environments and animals, and a touch tank with harmless, yet hardy, marine creatures. Plans include additional static exhibits emphasizing the research and educational and advisory programs of the Institute and traveling exhibits from other museums.

Associated with the Aquarium is a gift shop for Institute visitors which includes books and other items.

A killer whale, the first of fourteen fiberglass marine animal models to arrive at VIMS, is pictured above with the artist, Pete Foley (right) and Joe Choromanski before being suspended from the ceiling in the lobby of Watermen’s Hall.

3,000 Shells Donated to VIMS Aquarium

Over 3,000 tropical shells, coral and tests from around the world were given to the VIMS Aquarium by Mrs. Roberta Haines of Hampton, Virginia in June of 1987. Also included in the gift were three museum quality, lighted display cases along with several shell identification books.

The shells were collected by Mrs. Haines’ late husband in their travels around the world with the U.S. military. Joe Choromanski, aquarium curator at the Institute, feels the collection will add a new dimension to the natural history program of the Aquarium.
Allied-Signal Supports Bay Research

A gift in the amount of $37,500, over a three-year period, from Allied-Signal, Inc. of Morristown, New Jersey was announced in June of 1986 by Dr. Robert J. Orth, then head, of the Submerged Aquatic Vegetation (SAV) Research Program at the Institute.

The SAV Program was begun in 1978 under the auspices of the Environmental Protection Agency's Chesapeake Bay Program. It has continued through the combined efforts of the state and federal governments and the private sector to learn more about this important part of the Chesapeake Bay's ecosystem.

According to Orth, SAV aids in stabilizing sediments, helps to prevent shoreline erosion, provides a source of food for wintering waterfowl, and serves as a habitat, a feeding area, a refuge from predation and a nursery area for large numbers of macroinvertebrate species. "In particular, these shallow-water grass meadows may be a key nursery area for juvenile blue crabs," Orth said.

Mr. Jack G. Owens, Vice President of the Fibers Division, Allied-Signal, Inc. in commenting on his company's gift stated, "The Institute should be commended for its contributions to the scientific programs which we are confident will lead to a reasonable solution to the problems facing the Chesapeake Bay."

Frank Perkins noted that Allied-Signal has shown a continuing interest in the work of the SAV research team. "We are deeply appreciative of their support for this research starting with a gift of $20,000 in 1984 and now with this three-year commitment."

Donors Strengthen Library's Holdings

Over the past two years, the VIMS Library has been the recipient of seven extraordinary gifts to expand its collections.

Through the generosity of the Japan Fisheries Association, a complete set of the publications of the International Whaling Commission was acquired. This gift significantly expanded the Institute's holdings on marine mammals and the whaling industry.

The fine ichthyology library of the late Dr. Robert H. Kanazawa was donated by his son, David. Dr. Kanazawa was affiliated with the Museum of Natural History at the Smithsonian Institution.

Dr. Carl N. Shuster gave the library a collection of reprints and periodicals. This was the first stage in Dr. Shuster's plans to place his professional collection, including his extensive library on horseshoe crabs, at the Institute.

An outstanding collection of works on parasitology was given by Dr. Robert Hutton. He also donated his microscope slide collection of diagenetic trematodes for use in the Institute's research and educational programs.

The professional library of the late Dr. Sewell Hopkins was given to VIMS by his sons. Dr. Hopkins, who was affiliated with Texas A&M University at the time of his death, had a long time affiliation with VIMS.

Professor of Marine Science William J. Hargis, Jr., was able to secure and gave to the library one of the few available thirty-volume sets on the United States and Canada arbitration of the disputed George's Bank boundary. He also donated an extensive collection of books, reprints and other materials from his professional library.

VIMS alumnus, James Melvin, added a book series to the library's collection in invertebrates. He also gave some classic volumes in marine studies.

Fisheries Instruments from Nunnally Trust

Through the generous gifts of Mr. Moses D. Nunnally, Jr., VIMS has been able to purchase three pieces of instrumentation for use in fisheries research. The equipment purchased includes a Benthos Time-Depth Recorder, a Wild M-5 Microscope and a Hewlett-Packard Color Plotter.

The Time-Depth Recorder (TDR) is used in plankton or larval research and records how deep the plankton net fishes. Often, due to subsurface currents, ship maneuvering or other problems, the net or other gear does not go down as deep as calculated. With the record provided by the TDR, improper tows can be identified and refished immediately if necessary; thus, assuring accurate data.

Acquisition of the Wild M-5 dissecting microscope is an important step forward in quality over those previously used by the Institute's fisheries faculty, students and technicians. A microscope, even in this age of advanced technology, is still an important instrument for the scientific researcher. It is a crucial tool for the identification of fish eggs or larvae which requires careful examination of diagnostic features to distinguish various species.

The acquisition of the Hewlett-Packard Color Plotter enhances the ability of the Institute's fisheries scientists to organize and analyze large amounts of data. Using computer generated graphics and the plotter allows researchers to more quickly plot data and examine patterns. If the data suggests a need to modify the parameters being tested, experiments can be redesigned and unproductive efforts can be ended.

Anonymous Gifts Provide New Equipment For Sediment Studies

Two anonymous gifts have made possible acquisition of a second benthic instrument tripod and a bottom mounted field system to measure fluid mud processes.

In 1985, VIMS received $52,325 to develop a benthic tripod to complement the one developed with private funding in 1984. The second tripod will allow the Institute's geologists to obtain simultaneous measurements of near-bottom forces and resulting sediment responses at more than one location. This is especially important when dealing with large scale dredged material continued on page 6
disposal sites and varying water depths. Dean/Director, Frank Perkins, noted, "This gift further enhances our ability to address fundamental questions of sediment transport and deposition and related issues such as channel and harbor siting."

As more knowledge has been gained related to the Bay floor and sea floor dynamics, new and highly relevant questions have been posed concerning sediment dynamics. In 1986, the Division of Geological Oceanography and Benthic Ecology initiated efforts to study the dense clouds and plumes of fine sediment called "fluid mud," that "hover" near the bottom. Too "thick" or dense to sample with conventional techniques and too watery to sample with standard sediment cores, the scientists sought private support for the development of innovative technology.

The result of this effort was a gift of $44,600 in December of 1986. Acquisition of this instrument system will advance understanding of the dynamic behavior of a phenomena whose existence in the Chesapeake Bay System has been documented, but is virtually unstudied.

VAN ENGEL FELLOWSHIP, continued from page 2

in the Chesapeake Bay region and to benefit the Commonwealth of Virginia in the conservation and management of crustacean resources.

The first Van Engel fellowship recipient, Eugene J. Olmi of Charleston, S.C., began a three-year doctoral program in fisheries science in September of 1986. Olmi received his bachelor's degree from Furman University and a master of science degree from the College of Charleston. He is conducting research on the Chesapeake Bay blue crab under the direction of Dr. Romuald N. Lippius, head of crustacean research at VIMS.

Professor Van Engel began work at the Institute, when it was known as the Virginia Fisheries Laboratory, in 1946 and retired from VIMS in 1985. He is nationally recognized for his research on the blue crab.

CSX Gives Positioning System

In the fall of 1985, the Institute acquired, through the generosity of CSX Corporation, a Del Norte Trisponder System for use in research efforts to predict sediment transport and deposition. This system provides highly accurate position determinations for vessels operating in the waters of the Chesapeake Bay and its tributaries.

Prior to acquisition of the Del Norte System, the Institute's scientists were using the Loran-C radio navigation system for position determination. This system utilizes radio transmissions from fixed stations along the eastern seaboard and can provide a position fix in open waters of approximately ± 60 feet. Within the Bay and more particularly within the tributaries, the accuracy of positioning degrades due to increased interference from the land mass. For much of the Institute's research, the accuracy provided by the Loran-C is quite adequate. However, many of the features associated with sediment movements are relatively small in scale often occurring over a space of several meters. The same is true with some features of water movements. To resolve the distribution and/or movements of these features a positioning system with higher accuracy is required.

The accuracy of the position fix provided by the Del Norte System is ± 3 feet, an improvement by a factor of 20 over Loran-C. This improvement in accuracy is allowing VIMS researchers to study the stability of sediments in dredge disposal areas associated with the deepening of channels, to look at the movement of toxic chemicals in the sediments in such places as the Elizabeth River, and to map the location of circulation features and the relative positions of sampling points.

Gift and Donor Totals

1985-86

Gifts

| Unrestricted | $101,299.00 |
| Restricted   | $215,596.00 |
| Gifts-in-kind| $229,395.00 |
| Endowment-   | $1,000.00  |
|             | Total      | $547,290.00 |

Donors- 138

Other Support

| Loans        |
|             |
| Equipment   |
| Oceanographic| $44,144.00 |
| Computer    |
| (long term) |
| Estimated   |
| value-      |
| $58,700.00  |
| Equipment   |
| and technician- |
| Del Norte Positioning System for four weeks; value- undetermined |
| Special Donation|
| Fiberglass Marine Animal Models for VIMS Aquarium; Estimated value- $250,000 |

1986-87

Gifts

| Unrestricted | $44,144.00 |
| Restricted   | $42,853.50 |
| Endowment Association- |
| Expansible    | $62,100.00 |
| Real Property | $57,000.00 |
| Gifts-in-kind | $74,118.00 |
| Endowment-   | $118,298.99 |
|             | Total      | $398,514.49 |

Donors- 156

VISITING SCIENTIST, continued from page 2

Dr. John Widdows
Institute of Marine Environmental Research
Plymouth, ENGLAND

Dr. John Kyung Oh
Inha University
KOREA

Dr. John Grizzle
Auburn University
Auburn, Alabama

Dr. John Stegeman
Woods Hole Oceanographic Institution
Woods Hole, Massachusetts
Vessel Gifts - Over the past two years the Institute has received five gift vessels, including the Off Shore 34, valued at $60,000, pictured above. The additional vessels include a 36-foot Cruiselong ($35,000), a 25-foot Chris Craft Express Cruiser ($11,000), a 25-foot Aglass Cruiser ($11,000) and a 17 1/2' Pete Culler Sailing Skiff ($4,500) used by the VIMS Sailing Association.

Zeigler Student Award Fund

In November of 1986 efforts began to establish an endowed fund to recognize graduate student achievement. The award will carry the name of the late John M. Zeigler in recognition of his many years of professional and personal service to VIMS and its students.

The endowment goal for the fund was set at $12,000. The income from the fund will provide a substantial annual monetary award to recognize student contributions to the research, educational and advisory programs of the Institute. Response to the announcement of the effort to secure endowment gifts was excellent with 75 gifts and commitments totaling $12,631.00.

As of June 20, 1987, $7,124 in gifts had been received. With the completion of a majority of the pledges in 1989 and the return of income to the endowment corpus, the fund should reach the designated level by 1990.

Lynch Named As Associate Dean

Maurice P. Lynch, assistant director for special programs at the Virginia Institute of Marine Science, was named associate dean of the School of Marine Science. Lynch's appointment, which took effect March 1, 1987, was approved by the Board of Visitors at its February 27, 1987 meeting.

Lynch, 51, who holds the rank of professor, is also the director of the Chesapeake Research Consortium, a group composed of the University of Maryland, Johns Hopkins University, The Smithsonian Institution and VIMS to work in a coordinated fashion on baywide problems in the Chesapeake. The consortium is currently active in supporting the federal and state Chesapeake Bay cleanup program.

Lynch is also chairman of Chesapeake Bay Program's Scientific and Technical Advisory Committee and served as president of the Coastal Society, a national coastal resource group, in 1984 and 1985. He served as director of the Virginia Sea Grant Program from 1977-1980.

His areas of research interest include management of marine and estuarine resources with special emphasis on management/research interactions and communications, coastal zone management, physiology of estuarine organisms and uses of data and data bases in management of marine and estuarine resources.


Deepsea Loans Research Equipment

Deepsea Ventures and its parent company Ocean Mining Associates has loaned the Institute a wide array of oceanographic research equipment totaling $58,700 in value. The term of the loan, which began in 1985, is five years.

Included in the equipment are benthic cameras and accessories that have advanced the work of the benthic ecology research team in studying bottom dwelling organisms. This suite of instrumentation amounted to almost half the value of the loan and arrived at a time when the research team was looking for ways to acquire similar equipment to add sediment surface photography capabilities to REMOTS sediment profile camera. The REMOTS camera is designed to take photographs of undisturbed vertical profiles of the sediment-water interface and the sediment column below the interface to a depth of 20 centimeters.

This loan is in addition to one in 1984 in which the company made available to VIMS researchers a $30,000 black-and-white underwater video camera.

Associate Dean John M. Zeigler 1922-1987

Associate Dean John M. Zeigler died on January 2, 1987 at Riverside Hospital in Newport News. He had been courageously battling cancer for some time.

John served the Institute and the Commonwealth of Virginia for 15 years first as division head for physical sciences and then, beginning in 1981, as associate dean. He was internationally recognized for his advancements in knowledge of sedimentation and coastal processes and the application of this knowledge toward man's use of dynamic shores and beaches.

Of particular note was his work on the coastal geology of Cape Cod during his years at Woods Hole Oceanographic Institution and his studies of surf zone processes.

The College's Board of Visitors in a resolution honoring his service stated, "His particular interest and dedication to students and the academic program of the School of Marine Science has resulted in a viable, vibrant graduate program that has produced highly placed and successful alumni, distributed around the world in administrative, academic and research positions."

Colleague, friend and former student, Bob Byrne, Associate Director for Research at VIMS, noted John's and Marilyn's (Dr. Zeigler's wife) dedication and commitment to the VIMS' students and faculty in a letter written in December of 1986. He wrote, "Whether hosting special functions, small get togethers or just providing a quiet place for informal conversations, their generosity has carried a special meaning to students and staff members alike."
Reorganization at VIMS

Dean/Director Frank Perkins announced the reorganization of scientific units at VIMS effective July 1, 1986.

According to Dr. Perkins, the reorganization has a threefold purpose: 1) to provide the Director a better opportunity to interact with the federal government for the purpose of obtaining increased federal funding thereby enabling the Institute to be more responsive to the needs of the managers of Virginia's marine resources, 2) to concentrate the administrative duties with fewer individuals thereby freeing more faculty to engage in research, education and advisory services, and 3) to encourage and facilitate interdisciplinary research at the Institute by combining within selected divisions appropriate research capabilities which are now separated.

The reorganization created a new designation, Associate Director for Research, which has been filled by Dr. Robert J. Byrne, formerly Assistant Director and Division Head of Physical and Engineering Sciences at VIMS. Byrne's selection was based on his extensive knowledge of the various research programs and his ability to manage interdisciplinary projects. Additional appointments made as a result of the reorganization were:

- Assistant Director for the Division of Chemistry and Toxicology, headed by Dr. Robert J. Huggett;
- Assistant Director for the Division of Fisheries and Biological Sciences, headed by Dr. Robert J. Orth;
- Assistant Director for the Division of Geological and Benthic Oceanography, headed by Dr. L. Donelson Wright; and
- Assistant Director for the Division of Physical Oceanography, headed by Dr. Bruce J. Neilson.

Mr. Michael Castagna has headed the laboratory at Wachapreague for a number of years and will continue his excellent work as Assistant Director and Scientist-in-Charge of the Eastern Shore Laboratory.

BAY EAGLE, continued from page 1

Bob Byrne, associate director for research, stated, "We are quite fortunate in having a number of very skilled and talented people on our vessels staff. They saved the Institute ten's of thousands of dollars by accomplishing the conversion of the BAY EAGLE to meet our requirements inhouse."

The BAY EAGLE is an aluminum hulled vessel manufactured in 1980. Powered by twin 12V71 Detroit Diesel engines, the vessel is capable of cruising at 15 knots. It has a three day cruising range. Besides the specifically designed laboratories, the vessel is equipped with a 271 Detroit Generator and a mast with two booms operated by hydraulic winches powered by the main engines. The crew compartment provides accommodations for seven people overnight.