Map and Guide

VIMS 50th Year Open House

Saturday, September 8, 1990
11 a.m.-4 p.m.

Welcome to the Virginia Institute of Marine Science/School of Marine Science of the College of William and Mary. VIMS began as the Virginia Fisheries Laboratory in 1940, located in Yorktown and housed in what had been a filling station. Today, join us as we open our doors to celebrate 50 years that have made VIMS the nation's premier academic institution dedicated to the study of estuaries and the coastal oceans.

Use this flyer as your tour guide. On the map, each building is numbered. Each feature of the Open House is described herein and keyed to the numbers on the map. Look for the bright blue signs reading "Open House." Each open building will be marked with one.

Visit our laboratories and see oceanographic research in progress and sensitive scientific instruments–like the electron microscopes. Enjoy the special photograph and poster exhibits, equipment displays and demonstrations. Tour some of our oceanographic research vessels—some just back from sea, others ready to go on Monday. See the sea turtle, the fishes and the invertebrates in the VIMS Aquarium-Lobby, where you may wish to buy some souvenirs of your visit.

Be sure to ask questions. Our staff members will be glad to answer them!

The Open House will conclude with a half-hour program of music by the Fifes and Drums of Yorktown in front of Watermen's Hall from 3:30 to 4 p.m.

ATTRACTIONS:

Watermen's Hall (No. 1)

Aquarium Lobby

Living marine animals—including a sea turtle, a horseshoe crab, flounders, and sharks—are on display in aquaria and in the touch tank. Lighted panels identify some of the animals and give information on their life histories. Giant models of whales and large marine fishes hang from the ceiling.

VIMS' History and Work in Pictures

Relive the past 50 years at the Institute in the photograph exhibit. See how VIMS has developed and continues to meet its three-part mission: marine research, education and advisory services.

The School of Marine Science

William and Mary's School of Marine Science, based at the Gloucester Point campus, offers the master of arts and Ph.D. degrees in marine science. The School is divided into six subfaculties, biological oceanography, chemistry and toxicology, marine fisheries science, geological oceanography, marine resource management and physical oceanography and environmental engineering.

A photograph exhibit chronicles studies at VIMS. Catalogs and posters will be on display so you can learn more about the educational programs. Graduates are pinpointed on U.S. and world maps, showing where our alumni are now.

Pollution Monitoring

VIMS is one institution studying non-point-source pollution of the Chesapeake Bay system. Our chemistry and toxicology division has a sampling station in neighboring Mathews County that samples air and rain in this ongoing study. How do they take their samples? Find out in this poster display.

Submerged Aquatic Vegetation

Among other things, submerged aquatic vegetation provides the famous blue crab with breeding grounds. In this exhibit, see how VIMS biologists map the vegetation using aerial photographs, remote sensing and field work, then use the computer to store and graphically display the information.

Wave Measurements in the Chesapeake

VIMS geological oceanographers have used wave gauges in the Lower Bay to measure wave sizes and frequency continuously for a year. Wave information has applications in erosion prevention, disposal of dredge materials, recreational boating and oil spill management. This display and video show how the instruments were deployed and explain what the scientists learned.

VIMS Computer Center

The Institute staff has access via terminals to a large, mainframe computer called a PRIME. But more and more people are using personal computers as well. In the Computer Center, get a computer plot of the tides in Gloucester Point on the day you were born. See how the same computer program can track a hurricane—and a sea turtle. Or see on the screen a map of the Gloucester Point shoreline, with saltmarshes or submerged aquatic vegetation shown in different colors.

VIMS Library (Basement)

Library opens at 2 p.m. A great view of the York River isn't the only thing that draws our students to the library. Its more than 40,000 books and bound periodicals, with 1,500 journal titles, focus on marine and environmental sciences and the ecology of estuaries—especially the Chesapeake. VIMS publications over the past 50 years will be displayed, and the Matthew Fontaine Maury Chart Room will be open, containing charts of the East Coast.

Vendors

Food, silver work, and souvenirs of VIMS will be on sale in front of Watermen's Hall throughout the Open House.

Byrd Hall (No. 7)

Chemistry and Toxicology (Begin on third floor)

This important research program studies the levels of pollutants in an area and how pollutants affect the marine organisms that live there. This demonstration will take you through the work step-by-step and starts on the third floor of Byrd Hall, proceeds to the second and the first floors and on to Davis Hall. Sampling equipment will be on display, and researchers will be busy preparing and analyzing samples and explaining what they do, and why. In

the basement "wet lab," see how fish cells are cultured. Light microscopes let you see how a fish's immune system cells ingest bacteria.

Fishery Genetics (Third and second floors)

Analyzing certain types of proteins and DNA—the chemical compound that governs heredity—VIMS scientists are studying stock structures of bluefish and sharks, marlin and swordfish, among others. The information is then used to manage the fisheries.

Davis Hall (No. 4)

Electron Microscopy Lab

See the Institute's state-of-the-art EM lab, featuring transmission and scanning electron microscopes, and electron micrographs on display.

Microbiology Lab

Tour the microbiology laboratory, where work on marine bacteria is underway.

Marine Culture Lab (No. 2)

In VIMS' new experimental oyster aquaculture laboratory, research is underway on "triploid" oysters (with three sets of chromosomes), which biologists hope will prove more hardy and disease-resistant than normal "diploid" oysters (with two sets).

Brooke Hall (No. 6)

Wetlands

On the second floor, posters illustrate the importance of wetlands management and the work of VIMS specialists in applied wetlands ecology in identifying, protecting and conserving wetlands and complying with regulations. In the sea grass laboratory, see demonstrations of instruments used to study nutrient enrichment and cycling and water quality.

Coastal Inventory Laboratory (No. 19)

In the center of VIMS' coastal inventory work scientists map and analyze the physical characteristics of and biological interactions in Virginia's 5,000 miles of tidal shoreline. Data from the inventory are made available to community planners and managers via the state's Council on the Environment.

Brown House (No. 23)

Chesapeake Bay Research Reserve

VIMS is the lead organization in the development and management of the Chesapeake Bay National Estuarine Research Reserve System in Virginia. The reserve system will provide as many as 20 sites for long-term research and education on estuarine environments. Virginia's first four sites are in the process of being officially designated by the National Oceanic and Atmospheric Administration, the agency spearheading the project.

Franklin Hall (No. 28)

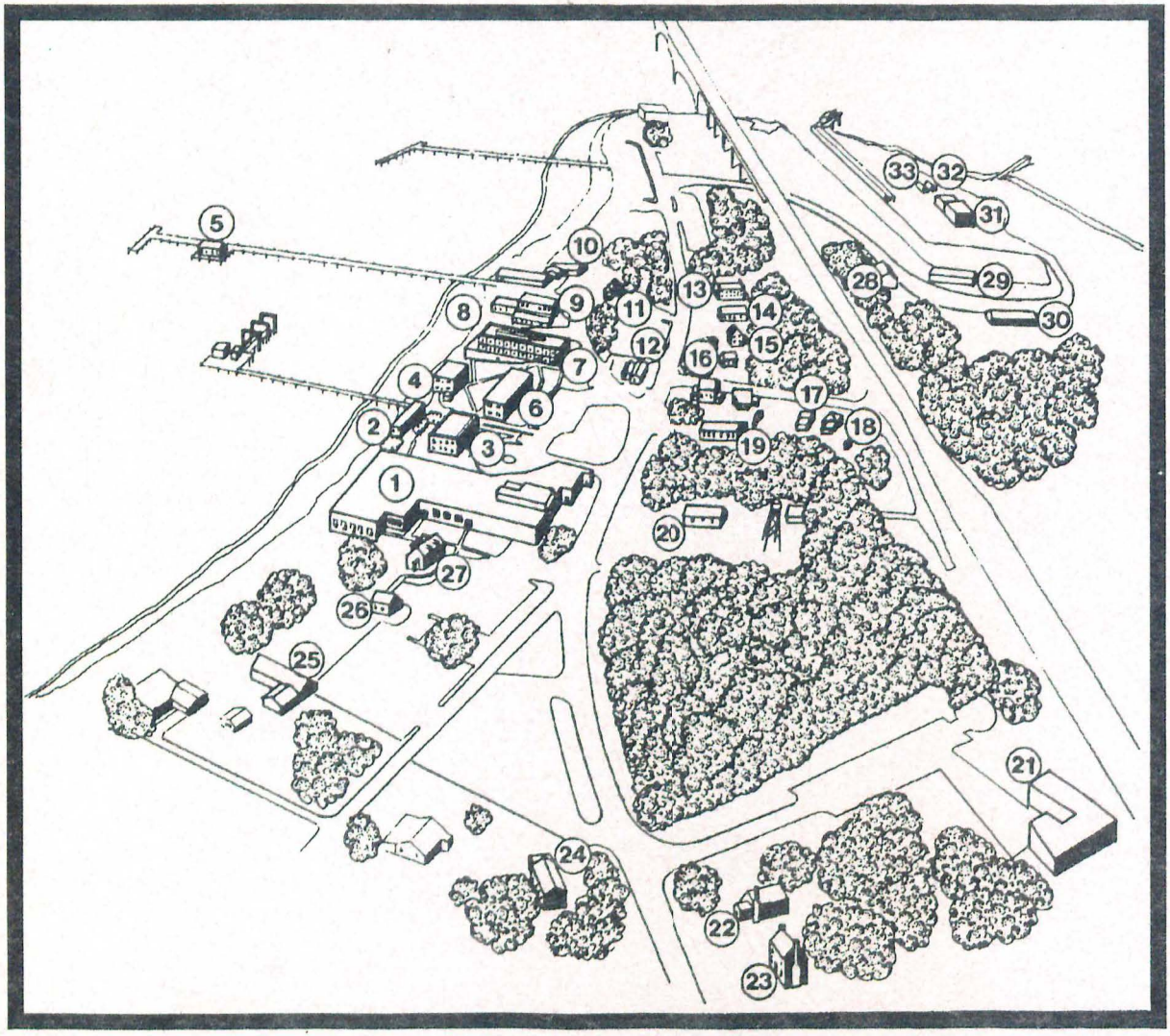
How has physical oceanography advanced during the past 50 years? See for yourself as you tour the display of then and now, old and new current meters, depth and temperature meters, and sampling equipment. Videotapes compare scale models of an estuary—state-of-the-art until around 1980—with the three-dimensional mathematical model on computer which allows many more experiments in the same amount of time. Also see the flume, containing a prototype of equipment being developed to characterize bottom waters. Big equipment on display includes the "rosette," a system of water-sampling bottles that collect sea water at different depths, and the plankton camera.

Vessel Operations (Boat Basin at No. 29 and No. 30)

Board VIMS' research vessels and see them geared up for field research. The R/V *Bay Eagle* is fitted with sidescan sonar to electronically map the topography of the river. The R/V *Langley* will leave Monday for a water quality cruise on the Bay and is geared up for fluorimetry, salinity, temperature and depth measurements, and chlorophyll determinations. The R/V *Capt. John Smith* just returned Friday from a week's shark longline fishing cruise in the coastal inlets and the lower Bay. And the newest member of the Institute's fleet, the R/V *Fish Hawk*, is used on our 30-year-long research project on finfish and blue crab populations. Visit the maintenance shop as well to see where gear and instruments are made and repaired.

Oyster Hatchery (No. 31)

Step-by-step aquaculture of the Virginia oyster is the work of the VIMS Oyster Hatchery. In the algae room, single-celled plants are grown for oyster "feed." Adults are held in the broodstock room as they get ready to spawn, then moved to warmer spawning tables, where eggs are collected, hatch as larvae and grow. In the setting tanks they settle as "spat" on old oyster shell chips, and after two weeks in "upweller" tanks, they are put out in the river on special racks.



Shuttle buses will run continually between Maury Hall (No. 3) and the Boat Basin area (Nos. 28-33).