

VIMS Acquires Unique New Vessel

VIMS has acquired a virtually unused military landing craft at no cost from Army Surplus at Fort Eustis. The vessel gives VIMS scientists the ability to conduct research within the zone of breaking waves, an area that is extremely difficult to study using conventional research vessels and equipment.

The 74-ft. vessel, which has not yet been named, arrived at VIMS in mid-October from a local boatyard where an in-depth inspection found its aluminum hull and engines in excellent condition. The boat's two 12V71 Detroit Diesel engines each have less than 400 service hours.

The vessel currently has a small pilothouse, a large payload area, and a hinged bow door. Its 41-inch draft allows the vessel to literally beach itself, thus providing access to shallow, high-energy coastal waters where other research vessels fear to tread.

To provide full value to the research community, VIMS plans to outfit the craft with a four-corner anchoring system, a crane, and crew quarters. VIMS Dean and Director Don Wright estimates outfitting the vessel for research will cost approximately \$350,000. "That's a real bargain," says Wright. "Building a new vessel with similar capabilities would take at least three years and cost several million dollars."

VIMS has already raised \$138,000 from three anonymous donors to complete the initial refitting, and will seek to raise the balance in the next several months from private sources.

"Once the vessel is outfitted," says Wright, "we'll be able to lift and deploy a wide range of equipment in shallow water, quickly anchor and maintain position in rough conditions, and maintain a large working deck for placement of modular labs and equipment. We're confident that it will quickly become a workhorse in the VIMS fleet."

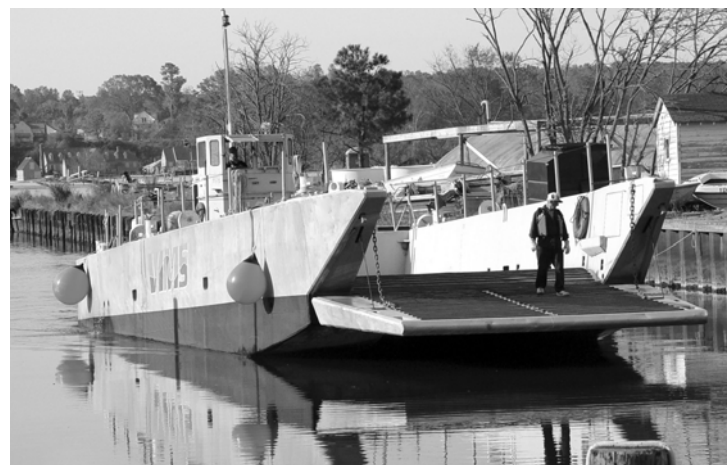
With the deck-mounted crane and a cargo capacity of 120,000 lbs (not coincidentally the weight of an M1 Abrams Tank), the vessel will be able to carry and deploy the heaviest oceanographic instruments, including data buoys and smaller research vessels such as VIMS' RV *Elis*

Olsson. The existing VIMS research fleet has a maximum lifting capability of only 500 pounds. The vessel will also be able to tow seafloor-mapping instruments, and will make it much easier to obtain sediment cores from the seafloor.

"The vessel's capabilities will make collection of near-shore and beach data much easier and less expensive," says Wright. "It will be able to single-handedly do what previously required numerous vessels and drilling rigs."

Coastal geologists such as VIMS' Dr. Jesse McNinch are particularly excited about the vessel's capabilities. McNinch studies "erosional hotspots," short stretches of sandy beach that suffer severe erosion during storms. The new vessel provides a stable platform that will make it much easier to take sediment cores within the breaker zone. "Cores allow us to explore the nature of the underlying sediments, which hold the key for better understanding and predicting shoreline erosion," says McNinch.

The vessel provides opportunities for biologists as well. Dr. Bob Diaz plans to use the craft to tow his benthic sled, a submersible, video-equipped plow that provides a continuous real-time view within the seafloor. By dragging the plow-sled behind the new vessel, Diaz can immediately charac-



The new vessel enters the VIMS boat basin with its bow door open.

terize the habitats of bottom-dwelling organisms, including sediment types and oxidation.

VIMS plans to help pay the vessel's operating costs by making it available to other users, including the Army Corps of Engineers and the U.S. Geological Survey.

"The Corps estimates that \$1 billion will be spent on beach re-nourishment projects in the U.S. in the next decade," says Wright. "Every re-nourishment project requires seismic surveys, seafloor mapping, and sediment coring—exactly what this vessel does best."

The landing craft was constructed by Marinette Marine Shipyard in Marinette, Wisconsin in 1967, underwent a complete refit and refurbishment in 1991, and was put in wet storage at the James River Reserve Fleet in 1992.

For more information visit www.vims.edu/newsmedia/topstories

Marine Science Day Scheduled

Marine Science Day 2004 will be held on Saturday May 22nd from 10am - 3pm at VIMS' Gloucester Point Campus. The day will be jam-packed with fun and educational things to see and do. Visitors can collect and observe aquatic animals on the beach, join in hands-on "critter talks," learn from chefs at seafood seminars, and attend lectures. Research laboratories and the Teaching Marsh will be open for tours and a children's pavilion will have educational activities and games for youngsters. Stay tuned to www.vims.edu or call 804-684-7846 for schedule and contest information or to find out how you can volunteer to become involved.

The Crest

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recognized for conducting scientific studies that have fundamental and immediate relevance to the citizens of North Carolina. While director, Wells oversaw the construction or renovation of three laboratory buildings and implementation of numerous partnerships with other universities and agencies.

Wells' primary research interest is coastal marine geology with emphasis on sedimentology, morphology, physical processes, and the evolution of sedimentary environments. He pursues these topics with research along the central North Carolina beaches, the lower Neuse River and Pamlico Sound, the Mississippi Delta, the west coast of

Korea, and Lake Malawi in east Africa.

The new VIMS dean currently serves as editor-in-chief of the journal *Marine Geology*, and has authored or co-authored nearly 100 publications on such topics as the evolution of sedimentary environments in Louisiana's Atchafalaya Delta, the dispersal of silts in China's Yellow Sea, the effectiveness of beach scraping as a method of erosion control and its impact on barrier island ecology. Wells serves on the board of the North Carolina Coastal Federation, the board of the Carteret County Beach Commission, and the community advisory committee of North Carolina State University's Center for Marine Sciences and Technology.