

Stockton Marine Researchers Digitally Archive the Historic Robert J. Walker Shipwreck

Ship's Final Resting Place Off Atlantic City on National Register of Historic Places

For Immediate Release; <u>with link to photos; please credit</u>: Susan Allen/The Richard Stockton College of New Jersey

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Off Atlantic City, NJ - From the stern of the R/V Gannet, one of Stockton's four research vessels, Walter Poff, a Marine Biology major from Blackwood, NJ, signals thumbs-up to Dr. Peter Straub, professor of Biology, who is manning the controls of a remotely operated vehicle (ROV) named Shearwater.

After checking the lights, lasers and camera focus, Poff launches the sophisticated system overboard, where it splashes into the Atlantic Ocean with only a 350-meter tether of fiber optic cables as a lifeline.

The ROV propels downward 85 feet to the 132-foot Robert J. Walker, a U.S. Coast Survey steamer that sank to the silty bottom over a century and a half ago, after colliding with a commercial ship. With the Civil War fast approaching, a cause for the wreck was never earnestly pursued.

A team of marine researchers from The Richard Stockton College of New Jersey is partnering with recreational divers to assist the National Oceanic and Atmospheric Administration (NOAA) in mapping the Walker shipwreck, which was added to the National Register of Historic Places in April.

Stockton students are working alongside faculty members and staff from the college's Marine Science and Environmental Field Station through the Summer Intensive Research Experience (SIRE) program to help digitally preserve the historic site about 10 miles from the Absecon Lighthouse in Atlantic City. This summer they are creating high resolution video, side scan imagery and a map of the seafloor's depth around the wreck.

"We are painting a picture of what's invisible," said Steve Evert, manager of the college's field *-more-*

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station and assistant director of Academic Labs.

Sea bass and tautog were probably the first to discover the shipwreck, but it wasn't until the1970s that recreational divers and fishermen found the site. Structures on the seafloor attract marine life such as the northern star coral, mussels and fish, making shipwrecks prime fishing waters and an attraction to divers.

While on a surveying mission after Hurricane Sandy, the Thomas Jefferson, a NOAA ship, dedicated two days using sonar and divers to confirm that the wreck was truly where 20 crew members of the Walker were lost at sea in what NOAA calls its "largest single disaster in the history of NOAA or its predecessor agencies."

There are a handful of other wrecks in the vicinity, but distinct features such as a paddle wheel and square portholes were evidence that it was surely the Walker, explained Straub. Questions still remained after the two-day investigation, so NOAA reached out to the New Jersey Historical Divers Association (NJHDA) to help continue the mapping project. The NJHDA divers then partnered with Stockton to utilize marine technology in the underwater search for answers.

Steve Nagiewicz, a graduate of Stockton's Professional Science Master's in Environmental Science program who teaches science at Atlantic City High School, and Vince Capone of Black Laser Learning, were instrumental in engaging Stockton's Field Station in the mapping work. They have been working closely with the Stockton marine research team.

In addition to Stockton's ROV, a brand new multi-beam and dual frequency side scan sonar system was fixed to the side of the vessel to capture sonar images while simultaneously measuring depth.

Although sonar and multi-beam technology itself is not new, Evert said that Stockton's coregistered bathymetry and dual frequency side scan sonar system is state-of-the-art. He estimates that less than 50 of the EdgeTech 6205 units are in use throughout the world with about one quarter in academia.

Out on the ocean, Evert steers the vessel over the wreck in calculated sweeps, as the EdgeTech 6205 sonar records a picture of what lies below. Then the boat is anchored and students take turns navigating the ROV. With a small swell rocking the boat from side-to-side and the ROV turning left and right and up and down, it's hard not to get dizzy, but the students keep focused on the computer screen to keep the vehicle on track.

"We teach the students how to use the marine technology," explained Evert, "in preparation for careers."

The college's proximity to the research site, its cutting-edge technology and eager students make Stockton a perfect fit for the project.

"You have a group right here in front of the wreck and we are gung-ho," said Straub. He went on to explain that Stockton students are among the small handful of individuals who have ever witnessed the RJ Walker shipwreck.

This month, Stockton's high resolution footage and a finely tuned map of the shipwreck will be passed on to a team of advanced divers with the NJHDA who are volunteering to swim through the wreck. Stockton's data will familiarize the divers before they meet the wreck in the dark

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waters of the Atlantic. The series of scientific dives will "ground truth" Stockton's data, explained Evert.

"This is much more than a normal class," said Jamie Taylor, a Marine Biology major from Berlin, NJ, who was well aware of the Walker wreck prior to this summer. Taylor worked at American Diving Supply where customers and visitors would share stories of their dives to the shipwreck. When she found out that the class would be working at the Walker site, she was very excited.

"I'd rather be out here than a classroom any day. There's a calming feeling to the waves. A day on the boat is a good day," said Poff. As a child, Poff was fascinated by the fish swimming in his father's 150-gallon aquarium and enjoyed recreating oceanic habitats. "I wanted to turn that into a job," he said.

The water is a second home for Chelsea Shields, a Marine Science major from Mays Landing, NJ. She's learned to talk underwater with the help of a microphone for her job as an educator at the Atlantic City Aquarium. She gives tours and often dives into the tanks for feeding demonstrations. Shields said she has been visiting aquariums with her father for her whole life and has been as far as California and Ireland.

Emily Burnite, a Marine Science senior from Churchville, PA, said, "To get this experience as an undergraduate student is something you can't get anywhere else."

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