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# DuraPower *NewsWire*

News for DuraPower Products, Inc. Customers

In This Issue: **The Hunley is being raised**

## **DuraPower Product being used in recovery efforts**

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Archaeologists on Thursday began making fiberglass molds of the Hunley's hull.

Using special fiberglass tape, provided by DuraPower Products, Inc of San Jose, CA. Underwater dive teams wrapped sections of the sunken vessel in tape to create a mold that will show the sub's curvature.

The mold, when finished, will also help give scientists a more accurate weight estimate of the sub because the new measurements can better determine the volume of water and sand trapped inside, said Hunley project manager Dr. Bob Neyland. Meanwhile, removal of the sediment from around the sub continued Thursday as divers level out the area around the Hunley using powerful maritime vacuums.

About one-half of the top

section of the sub exposed, Neyland said, but he added that once sections of the sub are investigated they are quickly covered over by a layer of sandbags. "To protect it against a hose dragging across it or something else," he said.

## **History of the Hunley**

On the night of February 17, 1864, a small cigar-shaped submarine set off from Breach Inlet, between Sullivan's Island and the Isle of Palms, in search of an enemy ship. This small craft was the H.L.Hunley, one of the first workable submarines ever developed. She was about 39.5 feet long, and just four feet wide and five feet deep. The sub was powered manually, her crew turning cranks to spin her propeller. Already the Hunley had sunk twice, killing a total of 13 confederate sailors, including her namesake and financier, Horace L. Hunley. She had yet to see combat.

At 8:45 p.m., on that fateful February night, Union naval

officers aboard the U.S.S. Housatonic saw what they first described as a "Porpoise" coming toward their ship in the moonlit waters. Soon realizing that the ripple in the Atlantic was more than friendly dolphin, the crew aboard the Housatonic tried to draw their anchor and power away from the approaching craft, futilely bouncing

For more than 130 years, the fate of the Hunley following the sinking of the Housatonic remained a mystery. Although she signaled that she was coming back to shore, the submarine never made it back to safety to celebrate her victory. Both times the Hunley had sunk it was due to pilot error. Historians



Painting by Contad Wise Chapman circa 1863

ullets off the sub's wrought-iron hull. Their efforts, however, failed, and the cigar-shaped sub drove a torpedo into the side of the mighty Housatonic, sinking the Union sloop-of-war and becoming the first submarine in history to sink a ship in battle. This feat would not be repeated again for more than 50 years.

could only speculate as to why she disappeared on February 17, 1864. It seemed like the tale of the Titanic, and like the Titanic, many thought that the submarine would never be found. Though many adventurers had tried to locate the historic sub since the Civil War, it wasn't until the summer of 1995 that best-selling

author Clive Cussler and his team of divers discovered the elusive sub.

Today, Friends of the Hunley is dedicated to helping the Hunley complete its historic journey home. Our goals: to recover the remains of the brave men who gave their lives and honor them with the proper burial they earned; to solve the mystery of the that first-ever successful submarine attack in 1864; and to conserve one of the greatest, most sought-after artifacts in the history of naval warfare.

Friends of the Hunley, Inc. was created by The South Carolina Hunley Commission as a 501(c)(3), non-profit organization to raise the funding needed for the recovery and conservation of the H.L. Hunley submarine.

### **Hunley Recovery Project Hailed Internationally As Most Important Archaeological Endeavor of the Century.**

Charleston, S.C.--In a landmark international conservation symposium, world renowned archaeologists and conservators hail the proposed recovery, excavation and conservation of the H.L. Hunley

submarine as the most impressive and innovative archaeological endeavor of the century. Praising the recruitment of top archaeological and conservation minds and a unique blend of science and business management, the symposium declared the Hunley recovery project as the most exciting maritime project within the professional community both nationally and internationally, one that will be looked at to set the standard for recovery, excavation and conservation of large, complex marine artifacts.

According to Hunley project manager Dr. Robert Neyland, "Hunley is the most difficult composite iron artifact ever undertaken, and it is by far the largest and most complex object ever recovered." Michael McCarthy from the Western Australian Maritime Museum's Department of Maritime Archaeology added, "Hunley is raising the bar for underwater archaeology and conservation. Not only is she viewed as a significant object of history, but also a significant research and science project; this

is perhaps the most exciting find of the century."

### **State history calls out from the briny deep.**

I'd like to say a few words on the project to raise the *Hunley*, the Confederate sub that sunk a Union ship in 1864 and then disappeared without a trace off Charleston Harbor:

Most wrecked ships are lost and gone forever. Those found have been annihilated by ravages of sea creatures and salt water so that it is impossible to raise them intact. All that can be recovered and put on display are small, scattered relics.

I can think of no ship that, having lain on the seabed more than a hundred years, has been raised intact and preserved except the *Vasa* in Sweden.

The *H.R.S. Titanic* and the *Monitor* are examples of ships too deteriorated to be recovered in one piece.

Not so with the *Hunley*. She is totally undisturbed and intact as the night she set out to destroy the *Housatonic*, having been spared destruction from

a hostile environment. And because she has been covered with silt, filtering in through a broken port and filling her interior, the bones of her valiant crew should also be found, having lain undisturbed for 135 years.

This vessel launched submarine warfare. It was the first successful underwater wolf in history to actually sink an enemy warship, a feat not repeated until August 1914 when the U-21 sank the H.M.S. *Pathfinder* in the North Sea.

The opportunity to raise, preserve and place the *Hunley* on museum display for generations to come is truly a gift from the sea that will never be given again.

To provide the necessary funds to recover and preserve the *Hunley* would be a legacy from you, citizens of South Carolina, to your children, grandchildren and all future descendants to honor and cherish.

This is truly an effort worth achieving.

CLIVE CUSSLER  
Paradise Valley

AZ Editor's note: Mr. Cussler writes deep-sea

fiction novels and is a mover in the project to raise the *Hunley*.

### **Feasibility of Hunley Recovery Method Tested**

In late May 1999, scientists will evaluate the feasibility of one of the methods under consideration for recovering the *H.L. Hunley*. The United States Geological Service (USGS) and *Hunley* Project Manager Dr. Robert S. Neyland will take silt and sediment samples from around the sunken vessel and conduct core sediment studies with Oceanering Advanced Technologies to determine whether the materials surrounding *Hunley* are strong enough to support the sub during an encapsulation form of recovery.

This method of recovery would involve scooping the *H.L. Hunley* with a portion of the sediment that surrounds it, lifting the entire mass from the ocean bottom. By retaining the sediment that surrounds the vessel, the pressure within sub will remain stable for its new environment in the open air.

If lifted bare, the pressure exerted from the air above the water may cause the contents of the sub to expand and the sub may burst.

The studies will determine the sheer strength of the materials will be suitable for encapsulation of the *H.L. Hunley* during recovery. If tests find that the surrounding sediment is not strong enough to support the vessel during encapsulation, then an alternative method for recovery will have to be explored.

### **Researchers Look for Clues in *Housatonic* Wreckage**

Archaeologists hope to provide a more accurate interpretation of the battle between *H.L. Hunley* and *Housatonic* following their survey of the *Housatonic* wreckage this June. They will conduct an in-depth study of the wreckage to identify the position of *Housatonic* at the moment of attack, the extent *Housatonic* was underway, if *Hunley's* torpedo sheared *Housatonic's* propeller shaft. In addition to the *Housatonic* wreckage, archaeologists will examine an anomaly located between the two wrecks

of *Housatonic* and *Hunley*.

This information will allow researchers to better understand the attack by *Hunley*, the brief and hasty defense made by *Housatonic* and provide insight into how and why *Hunley* sank shortly after the attack.

The survey will be funded by a Department of Defense Legacy fund and by a grant from the National Geographic Society. Participants in the study include *Hunley* Project Manager Dr. Robert S. Neyland, South Carolina Institute of Archaeology and Anthropology (SCIAA), the Naval Historical Center, the National Park Service and Oceanering Advanced Technologies.

*Learn more at the frinds of the hunley web site at <http://www.hunley.org> and the Charleston Post and Courier web site <http://www.charleston.net> and serch for Hunley in the search box.*