South Carolina Naval Wreck Survey

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SC coast 200 miles from NC to Georgia, twice that counting inlets and bays. Only 30 feet deep out to 5 miles, many treacherous and shifting sandbars.

Since 16th C thousands of ships visit the coast for exploration, colonization, war and commerce. Many went ashore on the treacherous shoals, and sank for various reasons in the more than 3000 square miles of waterways and rivers, eventually becoming state-owned resources.

Among the countless wrecked watercraft in State waters lies a body of naval vessels spanning the years from the American Revolution to modern times.

These wrecks are still owned by the Department of the Navy, which maintains custody of all US Navy vessels not specifically relinquished by an act of Congress no matter where they are located in the world.

Navy has turned to the states as co-stewards to help in developing management plans for these national treasures.

First step in this plan came in 1996 with the teaming up of SCIAA with federal agencies (NHC and NPS) survey the remains of USS *Housatonic* and to record and recover the Confederate submarine *H.L. Hunley*. Viewed as battlefield-1st naval vessel sunk by enemy sub.

USS *Housatonic* artifacts indicated the preservation to be expected on other sites.

*Hunley/Housatonic* Project gave us the final piece of the puzzle needed to actually conduct such a survey through acquisition of a remote sensing ensemble courtesy of the state legislature. (Because of threats to the *Hunley*, a Confederate boat held in high esteem in a state that is still wondering if succession was not such a bad idea after all). ADAP III is a custom-built marine underwater survey ensemble, featuring a cesium magnetometer, side-scan sonar, DGPS (sub meter accuracy), depth, and navigation package (All digital).

And driven by three hefty computers (dinosaurs by modern standards).
Based on our work with the NHC on *Hunley/Housatonic* and with our equipment, the NHC requested that we assist them in inventorying and assessing the Navy wrecks in SC waters and providing us with a grant from the US Department of Defense. Similar cooperative work done by several other states.

- Developed contextual history of US naval presence in South Carolina, then individual ship histories pre and post sinking.
- NHC database showed 96 Navy-owned wrecks in the state. Our research concluded that some of those were Confederate blockade-runners and foreign vessels, leaving 46 wrecks owned by the US Navy spanning a time from the Revolution to WWII.

**Slide 10**

Earliest US Navy (Continental Navy) vessel is known to have been lost in SC waters was the *Queen of France*, purchased from France in 1777 and scuttled in the Cooper River in an attempt to block the British invasion of Charleston in 1779.

**Slide 11**

After the Revolution (in which Britain had a fairly active role), a change of US policy favored coastal and harbor defense, a policy that endured until after the War of 1812. During that time, the Navy built and acquired numerous shallow-draught vessels, such as gunboats, used to patrol the coast and the inland waterways, leading to much grounding in the shoal waters of the coast, and foundering in the fickle ocean offshore.

**Slide 12**

During the American Civil War or War Between The States (1861-65), the dominant mission of the Union (Northern) vessels present in Charleston, the South’s largest port, and throughout the South, was to create an effective blockade and deny the Confederates (South) their trade with Europe. The Union had a prodigious navy, which forced the Confederate into a defensive posture for the duration of the conflict, resulting in numerous ship losses on both sides of the conflict. The large and continuous presence of the Union vessels off Charleston required also a readily available coaling, victualing, and repair depot to service the cranky iron and steam vessels of war that had been developed for the conflict. And so, Port Royal Sound, some 60 miles south of Charleston, was taken and became the headquarters for the South Atlantic Blockade Squadron (Virginia to Key West), and as a staging point for launching offensive operations.

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In 1861 and 62, the Union forces attempted to close Charleston Harbor by scuttling 30 old whaling vessels loaded with granite blocks across the two channels leading into the harbor. The “Stone fleets” as they came to be known, served their purpose for but a brief time before being swallowed by the deep sediments off the harbor, which empties three large rivers.

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After the War Between the States, the US naval activities decreased and coastal defense, once again, took precedence. The federal presence in Port Royal Sound continued with the development of a naval base on Parris Island, featuring a large dry dock.
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However, rivalry between Charleston and Port Royal, and the fact the Port Royal facility was
unsuitable for handling large battleship due to rapid and intense silting of the dry-dock and approaches,
led to the development the Charleston Navy Base in 1901.

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The Charleston Navy Base operated successfully through two World Wars, the Depression, and a Cold
War, only to be shut down in 1993 by BRAC (Base Closure and Realignment Commission) as a means
of reducing military infrastructure and saving operating and maintenance costs.

Slide 17
During the post Civil War years, only 2 US Navy vessels are known to have sunk in SC waters, USS
Hector (pictured here), a fuel/freight carrying collier, which sank during a gale in 1916, and a WWII
patrol vessel that ran aground in 1942 near Charleston.

Slide 18
SO, in a nutshell, what do we know about US Navy vessels lost in South Carolina waters?
• We know where most of them, 31 (66%) are, sort-of. We only know for sure where 8 (17%)
wrecks are.

Slide 19
• Most, 44 (94%), were lost in the vicinity of Charleston during the Antebellum Period (1785-
1865), including 40 vessels lost during the Civil War.
• Scuttling caused most losses, while 8 grounded, and 5 were lost to enemy action.
Of course, what we are really seeing here is data being totally dominated by the 30 Stone Fleet ships
scuttled off Charleston.

THE SURVEY
Slide 20
Four main areas in a 120-mile stretch with Charleston central. We begin our survey in Charleston
Harbor, the jewel in the state since it’s founding. Most wrecks buried beneath several meters if fluvial
deposits. Methodology-approximate locations known from historical and contemporary sources.
Survey blocks set up encompassing all known locations, 15-meter lanes in cruciform pattern towing
mag and side-scan, and gathering depth data.

Slide 21
Chance to also study some of the environmental and man-made factors affecting preservation/
degradation. Main influence-the jetties, constructed late 19th century, changed longshore drift, salinity,
bar migration and buildup, scour pattern. Areas northeast of jetties accreted (Hunley and Housatonic
and Stono/Isaac Smith), southwest of them eroded. Morris Island Lighthouse in 1900 was 650 meters
onshore, in 1970 it was 360 meters offshore. Diversion of Santee River. Beach renourishment effects.

Slide 22
While each of the 5 wrecks surveyed met their end from different causes, the post-depositional history
of each site is similar-contemporary salvage, demolition and burial. For example, USS Keokuk, a 159-
foot long, 660-ton double turreted ironclad, was hit by more than 90 shots when the vessel ventured
too close to Ft. Sumter, sank with no loss of life.
Confederate crews salvaged 2 11-inch Dahlgrens and other items, dismantled turrets. In 1874, the wreck was further demolished during a drive to clear the approaches to southern ports.

Not surprising that the magnetic signature of the wreck indicated scattered wreckage.

USS *Patapsco*, a 190-foot, 1875-ton single turret ironclad, suffered a similar fate when it hit a torpedo (mine) on January 15, 1865, sinking in less than a minute with 62 crew. However, *Patapsco* sank near the main shipping channel, allowing enough scouring of the site for some wreck components to be picked up on sonar records.

Second area of survey was Port Royal Sound, lying 60 miles southwest of Charleston. As well as searching for several naval vessels sunk there, the survey purpose to locate remnants of the past naval activity in the Sound, to provide context.

Port Royal Sound, site of Admiral Dupont’s headquarters for the South Atlantic Blockading Squadron. Taken in November 1861, mounting simultaneous attacks on Fts. Walker (Hilton Head), and Beauregard (Bay Point).

Federals built docks for supplying the fleet and the army.

Along Hilton Head shore, where T-dock was located. Mag hits, T-dock and 1870-shoreline georectified. At another location, Model A Ford body, BP2-66 car frame with seat belts.

Station Creek (Machine Shop Creek). Protected waterway for moving vessels to St. Helena Sound.

Admiral Dupont petitions Secretary of the Navy Gideon Welles for a repair facility to expedite field repairs to the cranky ironclads and gunboats of the South Atlantic Blockade Squadron. Floating repair facility, buildings shipped in and placed atop two whalers destined for the Stone Fleet-USS *Edward* (340Ton) and USS *India* (366 Ton). Ironclad repairs start January 1863. By Fall 1863, ships in bad shape. *India* was lifted off piles by unusually high tide, recovered and broken up for machinery. *Edward* was abandoned, in sinking condition, near dock. Floating depot used for 2 years until foundry moved ashore to a small midden. Dock built.

Survey along shore in front of midden revealed numerous magnetic hits. Magnetic and acoustic contacts (Ballast piles).

We investigated one ballast pile (SC2-s1) 28 meters long by 12 meters wide with large magnetic disturbances beneath the huge granite rocks…
Slide 34
And containing ship timbers, mostly pine frames 23cm square, 7.5cm ceiling planking, and 1.6 cm pine planking with copper sheathing, fastened with treenails. All timbers exhibit severe teredo damage. One copper drift, found near one end of the rock pile, is 4-1/2 feet long, and likely fastened four timbers together.

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Scattered amongst, and around the ballast pile are numerous ships fittings (egg. pulley sheaves) and artifacts from the Civil War period.

Slide 36
The wreck, aptly named the Station Creek Wreck (38BU2080) is probably the remains of USS Edward.

Slide 37
Third Area-Ashepoo/ Combahee/Edisto (ACE Basin) Rivers. Similar to Charleston methodology, looking for and confirming location and situation of known wrecks. ACE Basin scene of combined operations to harass the Confederates and try to break the railroad supply line between Savannah, Georgia and Charleston.

Slide 38 and 39
Dia Ching- New York built in 1862, 170 feet, 520 T screw steamer, single propeller driven by two engines. Union gunboat shelled, from Tar Bluff in January 1865, went aground here, abandoned after being hit over 30 times, and set afire. Located magnetically at downstream end of debris trail. Deeply buried, so water probing-2 to 2 ½ meters down.

Slide 40 and 41
Almost a year earlier, USS Boston, a 215 foot long, 574 T transport steamer, was sunk in Edisto River May 1864. Built in New York in 1850. Boston was sent up Edisto River at night to deposit troops to flank the enemy. An unreliable pilot took the vessel behind enemy lines, and after being hailed by Confederate sentry, tried to turn around and grounded. Hit by over 70 shells, 2 going through boiler, set afire, burning to death 75 cavalry horses and 8 team horses. Only 13 men killed or wounded.

Slide 42 and 43
Contemporary salvage of engine, and one of the few naval vessels subjected to treasure hunting-1980s by Florida salvager, who recovered personal items, horse tack and artifacts positively identifying the wreck as the Boston.

Slide 44
Mag results. Wreck in less than 2 meters (7 feet) of water. Side-scan sonar results. Frames, 0.5 meters (18 inches) apart, keelsons, bulkheads, all sticking up to 1 meter above the sediments.

Slide 45 and 46
Last area we tackled was Winyah Bay, 60 miles NE of Charleston, to record what we could of USS Harvest Moon, 193 foot long side-wheel steamer, Admiral Dahlgren’s flagship that hit a mine and sank in March 1, 1865. Sank in minutes in 4.6 m of water. Came into Georgetown to see how troops were doing after taking Georgetown.
Slide 47
Easiest of the wrecks to find. Big smokestack is very prominent. But silting has reduced water depth to less than a foot at low tide. Therefore tidal windows to work on the flat underwater mud plane. Double tubed stack, nearly 5 feet in diameter. Inner tube, over a meter (44 inches) in diameter. Riveted iron plates, bolted atop one another. With horizontal iron tube (condenser) at mud level and a cowling that defines the upper deck level. Side-scan reveals only smokestack.

Slide 48
Mag data confirms a dispersed pattern left from the extensive salvage of the wreck that occurred for a month after the sinking.

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Probing took several days; with 122 probe locations, working off Jon boat and C-Hawk for higher platform. Wreck hull, machinery, and debris encountered from .6 meters (2 feet) to 4.1 meters (13.5 feet) below sediment. Probe locations and identifications-continuous wood and iron contacts gave orientation of vessel, and approximates length of hull. A wider swath of magnetic hits reflects the extensive contemporary salvage that occurred as salvage vessels came alongside to take away recovered items, and large, non-salvageable objects were dragged to the side and left.

Slide 50 and 51
The South Carolina Naval Wreck Survey was a success from several viewpoints.
1) We assisted the NHC with its mandate under the National Historic Preservation Act, and helped it define the scope of its responsibilities in South Carolina by nearly halving the number of claimed wrecks.
2) Gave us the opportunity to develop an historical context for these sites.
3) Conducted remote sensing on Navy wrecks that provides baseline environmental and archaeological data.
4) Allowed us to develop a GIS project that is both expandable and will greatly help us in the management of these and other sites in the state.
5) Gave us opportunity to develop our multi-faceted approach to locating, recording, and assessing sites.

Hopefully, the information obtained during the project will serve to direct Federal and State managers as co-stewards as they chart a plan to preserve and protect the sunken naval legacy in South Carolina. Want a copy of the report on PDF? Go to http://artsandsciences.sc.edu/sciaa/mrd/mrd_index.html where you will finds out about this and many other underwater archaeology projects conducted by the South Carolina Institute of Archaeology and Anthropology’s Maritime Research Division.
A Management Plan For Known and Potential
United States Navy Shipwrecks in South Carolina

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H.L. Hunley Assessment Project, May 1996
NPS Submerged Cultural Resources Unit
South Carolina Institute of Archaeology and Anthropology
U.S. Naval Historical Center

2 Gamma, Gradient Magnetic Contours

U.S.S. Housatonic

H.L. Hunley
Site Locations Known of USN Shipwrecks

- Yes: 66%
- No: 17%
- General area: 17%
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