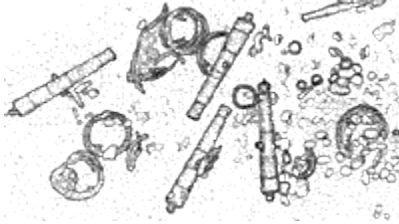


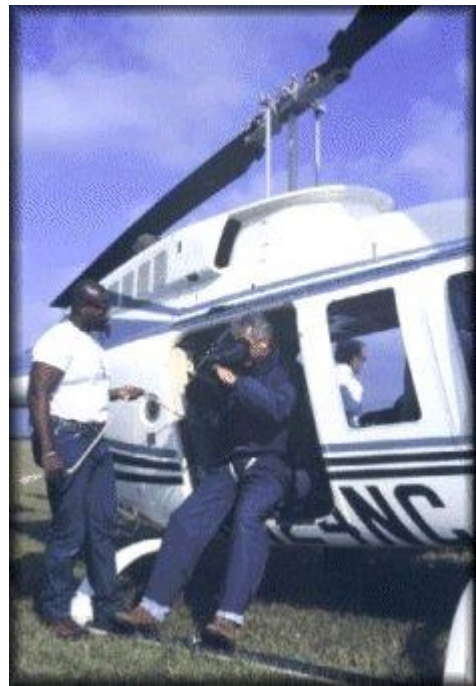
Fall 1999 Daily Reports



Monday, 10/04/99

As members of the project team arrived with anticipation, the steady rain and wind out of the southeast slowed the pace and allowed everyone to get settled in. Boats were launched and gear prepared. Eventually in the afternoon, two vessels went out for the first detailed look at the site since Hurricane Floyd passed by the site. MRI's leased vessel *Outrageous V* divers relocated the mooring lines and installed the baselines. UNC at Wilmington's research vessel *Seahawk* brought out an assessment team to determine what changes had occurred at the site.

Unfortunately, getting even the simplest of tasks was difficult due to the extremely murky water. Divers were able to determine that most areas immediately adjacent to the exposed mound were deeply scoured, especially on the north and west sides of the site. The wooden hull structure is largely sitting on a pedestal of sand and Cannon 13 is exposed for the first time ever (it was previously uncovered briefly during test excavations). The good news was that the majority of baseline and reference stakes survived thus making it possible to re-establish those vitally important lines. The BBC film crew began documenting the expedition.



Tuesday, 10/05/99



It will take more than murky flood waters from recent hurricanes and a poor tidal cycle to stop the research team; however, as an experienced crew their instincts are to slow down and accomplish only what they reasonably can. After the morning meeting to discuss overall objectives, researchers headed out to the site to tackle assigned tasks. Sand levels were recorded for all reference stakes, moorings were cleared and the gradiometer survey was begun. Not a bad day's work considering the water visibility never exceeded one foot! Unfortunately, reports continue to come in

concerning the devastation caused by currents from the recent hurricane. Many of the sandbags that had been placed on the wooden structure were lifted up and thrown several feet away. Scouring was two to three feet in some areas and 18th century artifacts were seen rolling around the bottom. The site is currently experiencing traumatic conditions that are threatening the archaeological integrity of the shipwreck remains

Wednesday, 10/06/99

We were rewarded by getting up early and out to the site by finding visibility improved to 5 feet on the bottom. The reason was that high tide occurred at 6 AM. Divers conducting video documentation were able to get some good footage of the exposed hull structure and associated material. However, the visibility quickly disappeared when researchers began the gradiometer survey. The survey began at 80 feet along the baseline, which is at the crown of anchor #2 (A2), and then proceeded north. This will complete work on the exposed structure and pave the way for recovering artifacts from that area once they are mapped in. Excavation equipment was tested on the east and south moorings and also cleared them for use. The east mooring was reported to have four feet of sand on top of it, giving us an idea where the sand from around the wreck ended up. Before leaving the site, archaeologists used light dredging to remove recent deposits of mud away from the exposed remains. This sediment layer ended up on the shipwreck due to the recent hurricanes. As divers come in contact with it the waters quickly become cloudy which greatly hinders work.

Thursday, 10/07/99

The water clarity has continued to improve. Much of the morning divers could see 5 feet and occasionally over 10 feet. The BBC film crew was happy to get good underwater footage of the wreck. These conditions helped archaeologists mapping the newly exposed remains to proceed quickly. The gradiometer survey proceeded working northward and ended just before reaching the north anchor. With the help of the geophysical consultant, whom processed and assisted with the interpretation of the data, no cannons are likely to be found in the areas northwest of the exposed mound. It was thought that the cannon scatter seen along the southwest side of the wreck would continue into this area. Smaller targets were detected, however, indicating that additional wreckage is scattered about. Excavations proceeded smoothly on the old current meter stand allowing researchers to take sediment samples and experiment with the equipment. The stand was brought to the surface after sitting near the site for a year and a half. The current meter itself was removed in May after recording a full year of current and wave data at the site. Excavators found that sand had built up nearly two feet in this area since the stand was installed. Some of the sand removed from the wreck by hurricanes may have ended up here.



Friday, 10/08/99

While survey and mapping activities continued on the main site, researchers on the vessel *Outrageous V* investigated other anomaly targets nearby. At the first, only a crusty iron ring projected above the sand bottom. By using an induction dredge, which acts like an underwater vacuum cleaner, the sand was slowly removed. The object turned out to be a large iron ball buoy with chain. This device most likely marked the channel or was used as a float during dredging operations. It is probably 20th century. At the second target an iron rod protruded above the



bottom. As the digging proceeded the investigators got excited because it appeared to be a grapnel hook (small anchor) that might have been associated with the *QAR* site. It took lots of work to uncover the whole object but once that was done, it was recognized as an iron stock anchor. It could not be associated with the main site because this type of anchor did not come into use until the 19th century. While it was disappointing not to find artifacts related to the main site, it is important to know that they are not, in order to understand what happened during the wrecking event. It is thought that the wooden stock anchor found last year is associated with the site. Located 420 feet south it may have been put out in an attempt to pull the grounded ship off the sand bar at the time of its wrecking. Later in the day the dredge system was set up to capture all materials in the outflow through a sluice system. The dredging was done around the plank and large ballast cluster objects that are slated for removal.

Saturday, 10/09/99

A small crew completed the assigned tasks despite extremely poor visibility. The gradiometer survey moved along virtually unhindered since divers control their movements using tagged lines that are strung across the bottom. The survey was completed up to the north end of the site and showed that the artifact scatter ends there. The removal of the plank from the bottom and into a box went smoothly, as did the strapping, lifting and relocating of the ballast concretion cluster (Baby Ruth) to the west mooring. Unfortunately, the lack of visibility hindered the geologists in their attempt to study ballast stones as they lay on the bottom. On the surface it was a beautiful fall Saturday!



Monday, 10/11/99



Lift days are always filled with excitement and anticipation. Today's activities were carried off without a hitch, from the strapping of the "Baby Ruth" (see yesterday's report) and hull timber (Gerry Compeau), to the lifting to the surface using airbags (Nathan Henry and Jim Dugan) and to the safe recovery to the deck of the R/V *Dan Moore* (Captain Steve Beuth and his entire crew). And you just never know what might come up. The 8 ½ foot hull timber was a highly desired artifact and will provide

archaeologists and conservators a great deal to study in the coming months. An important discovery was that it retains a large number of growth rings that may provide datable information through dendrochronology (tree-ring dating). The hull timber, however, was overshadowed by the "Baby Ruth" object which, on the surface, does indeed resemble a large candy bar with nuts (ballast stones) projecting out from all sides. It's what's inside that counts and after careful examination, researchers could identify the barrel of a short, fat cannon! That brings the total number of cannons identified at the site to 19!! While the site may not produce the 40 cannon purported to be on the *Queen Anne's Revenge*, the number of cannon found so far virtually eliminates any shipwreck lost in this area other than *QAR*.



Tuesday, 10/12/99



Sea conditions were marginal with strong winds bouncing the research vessels about. Just getting divers in and out of the boat was difficult. Their persistence was rewarded, though, when late in the day the report came up from the bottom that test excavations had revealed another cannon. This one brings the total to 20 confirmed cannons! Researchers had predicted its presence based on the magnetic readings taken during the gradiometer survey conducted in June. Currently, more gradiometer readings are being taken along the west side of the site, where additional cannons may lie.

Analysis of that data is on-going. Archaeologists also recovered a pewter platter, bringing the total of recovered plates and platters to 10. This, along with numerous pig and cow bones, suggests that eating aboard this ship was an important activity. Several very large stones were recovered in hopes these were some of the original ballast placed on the ship when it was built.

Wednesday, 10/13/99



Today exciting news came from the Maritime Museum's conservation laboratory. During cleaning of the "Baby Ruth" concretion, conservators found a second very small cannon (C21) lying next to cannon 19. This cannon is most likely a swivel gun that was mounted on the side of the boat. A maker's mark on C19 indicates that it was cast at a

Swedish gun foundry during the late 17th or early 18th century. There is almost certainly a date as well, however, because of the large amount of debris surrounding the cannons, it will take conservators some time to locate it.



Earlier in the day marines from the Cherry Point EOD unit x-rayed a variety of smaller concretions. This will help conservators decide how to best break into and clean each object. Within each there may be a wide assortment of delicate artifacts, such as pieces of clothing, food bones, and wood. These can be lost if researchers don't know where things are in the concretion. Out on the site, the gradiometer survey continued along the south and west portions of the site. Based on a preliminary examination of the results it appears that there is a magnetic target that represents at least one more large cannon that has not been documented. Therefore, while researchers gave a "21-gun" salute when C21 was located, they expect that several more will eventually be located. Shallow test excavations were conducted in order to examine and measure C20.

Thursday, 10/14/99

Just when we thought good visibility wasn't going to happen, a southwest wind blew clear, ocean water over the site. On the bottom, clarity was at times 10 to 12 feet, which allowed photographers to extensively record all site features. Archaeologists were able to quickly check drawings and measurements recorded earlier in the project when there was very little visibility. Plans to backfill the timbers were put off until tomorrow. The coverage across the site by the gradiometer survey is nearing completion. The survey has been a painstakingly slow process; however, it will provide rich rewards once the data is processed and examined for magnetic targets, such as additional cannons. After a day of cleaning, a date of 1713 was found on Cannon 19, which fits precisely into the right time period for *Queen Anne's Revenge*.

