Monitor vs. Merrimack

1. What type of ships were these?

2. How did the Confederates get their hands on the U.S.S. Merrimack?

3. The Merrimack was renamed what?

4. How many ships were involved for each side in the battle?

5. How long was the battle between the two ships?

6. Who won?

7. How were these types of ships an advantage?

8. When did this battle take place?
The Hunley

1. What type of vessel is the Hunley?

2. What was the reason why the Confederates built the Hunley?

3. How many men made up the crew of the Hunley?

4. How was the Hunley powered?

5. How come the U.S. ship could not fire at the Hunley?

6. How did the Hunley destroy the U.S. warship?

7. What happened to the Hunley?

8. When did this battle take place?
Civil War Battle of the Monitor Vs. Merrimack

The battle on March 9, 1862, between the USS Monitor and the CSS Merrimack, officially the CSS Virginia, is one of the most revolutionary naval battles in world history. Up until that point, all battles had been waged between wooden ships. This was the first battle in maritime history that two ironclad ships waged war.

The USS Merrimack was a Union frigate throughout most of its existence, up until the Union Navy abandoned the Norfolk Naval Yard. To prevent the Confederate Navy from using her against them, the Union Navy scuttled her. The Confederates, however, raised the ship from the shallow floor of the ocean and began making some major modifications. Confederate engineers cut the hull down to the water line and built a slanted top on it. Then, they bolted four layers of iron sheets, each two inches thick, to the entire structure. Also added was a huge battering ram to the bow of the ship to be used in ramming maneuvers. The ship was then fitted with ten twelve-pound cannons. There were four guns placed on the starboard and port sides, and one on the bow and stern sides. Due to its massive nature the ship's draft was enormous, it stretched twenty-two feet to the bottom. The ship was so slow and long, that it required a turning radius of about one mile. Likened to a "floating barn roof (DesJardien 2)" and not predicted to float, the only individual willing to take command of the ship was Captain Franklin Buchanan. After all the modifications were complete, the ship was rechristened the CSS Virginia, but the original name the CSS Merrimack is the preferred name.

The USS Monitor was the creation of Swedish-American engineer, John Ericsson. The ship was considered small for a warship, only 172 feet long and 42 feet wide. Confederate sailors were baffled by the ship. One was quoted describing her as "... a craft such as the eyes of a seaman never looked upon before, an immense shingle floating on the water with a giant cheese box rising from its center" (Ward 101). The "cheese box" was a nine by twenty foot revolving turret with two massive guns inside. "The USS Monitor used two of the eleven inch Dahlgren guns ..." (Lavy 2). These Dahlgren guns were massive rifled cannons that were capable of firing a variety of shot. The armor of this ship was a two inch thick layer of steel that shielded the ship. The deck was so low to the water line, about one foot, that waves frequently washed over the deck causing the ship to lose its balance in the water. Due to the low profile, the entire crew was located below the water line, so one armor piercing hit would kill the entire crew. Like the CSS Merrimack, the USS Monitor was expected to sink, it was referred to as "Ericsson's Folly" (DesJardien 2). The only individual willing to take command of the ship was Lieutenant John Worden.

The battle at Hampton Roads was part of the Peninsula Campaign that lasted from March to August of 1862. There was a total of five ships engaged in the battle. From the US Navy, there were four ships, the USS Congress, USS Minnesota, USS Cumberland, and the USS Monitor. The CS Navy had one ship, the CSS Merrimack. On March 8, 1862, the CSS Merrimack steamed into Hampton Roads. She proceeded to sink the USS Cumberland and then ran the USS Congress aground. Captain Buchanan then set his sights on the already handicapped USS Minnesota. The USS Minnesota was run aground
on one of the shores. Capt. Buchanan did not know, but the USS Monitor was lying in
wait, ordered to protect the wounded USS Minnesota. Lt. Worden steamed out into the
middle of the bay to meet the CSS Merrimack. The USS Monitor fired first in a drawn
out battle that lasted about four and a half hours. "They fired shot, shell, grape, canister,
musket and rifle balls doing no damage to each other" (Lavy 3).

After four and a half hours, the CSS Merrimack withdrew due to falling tides. The USS
Monitor did not make chase because of a crack in the turret.

The results of the battle were inconclusive, neither side could claim victory. The
estimated casualties resulting from the battle were extensive. The Union lost about 409
sailors and the Confederacy lost about 24 sailors. The battle was so impressive to the
leaders of both the Union and the Confederacy, that they contracted their Naval yards to
have more ironclad ships built. Additions to the Confederate fleet included the CSS
Tennessee, a 209 foot long blockade runner with four broadside cannons and pivoted
cannons at the bow and stern. Additions to the Union Navy included the USS Carondelet.
Armed with thirteen guns and stationed on the Mississippi, she was a formidable
opponent. Prior to the building of the USS Monitor, the USS New Ironsides was built. "It
was the strongest ship ever built by the Northern Navy" (Lavy 4). Wooden ships were
now obsolete. Ironclad ships began to roll out of ship yards more often than their wooden
counterparts. "The invention of ironclads in the Civil War set examples for the future of
ship building in the United States" (Lavy 5).

The ironclads were at an advantage over the wooden ships of the two Navies because of
their superior technology. Ironclads could withstand hours of battering by artillery, and
they could be used to cut traffic lanes through mine fields. Their armor could resist the
blast from a mine considerably better than any wooden ship could. They could also carry
more powerful guns. Due to their increased stability in the water these massive ships
could easily endure the recoil of a huge cannon. Another useful characteristic of the
ironclads was their ability to be used in ramming missions. The hull of the ship would not
be compromised by a hit associated with ramming a wooden vessel.

Because of Civil War technology, the United States has never built another wooden
battleship since the introduction of the ironclads. Every armed conflict since then has
seen more and more improvements in the way ironclad ships were built. The introduction
of multiple massive turrets in the late 1800s improved the firepower dramatically. Later
renovations included improved power plants and more devastating weapons. Perhaps the
greatest renovation came in the pre-World War I era with the introduction of the aircraft
carrier. Today, ironclad ships are so advanced that they are scarcely bigger than the
ironclads used in the Civil War, but they are hundreds if not thousands times more
powerful.

Although the wooden ship has proved extremely effective in naval battles throughout
history, the advent of the ironclad totally revolutionized the way in which naval forces
around the world approach warfare. "From the moment the two ships opened fire that
Sunday morning, every other navy on earth was obsolete" (Ward 102).
THE HISTORIC MISSION - The Hunley

The Hunley's historic journey began in New Orleans, Louisiana in 1861. Two entrepreneurs, James McClintock and Baxter Watson, along with wealthy New Orleans lawyer Horace L. Hunley were intent on constructing a military vessel capable of maneuvering completely underwater.

By February of 1862, a prototype submarine, christened Pioneer, was being test-run in the waters of Lake Ponchartrain. After testing Pioneer as well as another prototype submarine, referred to as the American Diver or Pioneer II a third, more sophisticated submarine was built. The H.L. Hunley, named after one of her largest investors, slid down a wooden ramp into the Mobile harbor in mid-July 1863.

This strange-looking craft was looked to with anticipation as a means to end the blockade of Union ships patrolling Southern harbors. The confederacy was showing signs of severe strain under the blockade and the cost of consumer goods continued to skyrocket. It was hoped that the Hunley was the key to foil the Union blockade.

The Date: February 17, 1864.

The Location: Just outside Charleston Harbour approximately four miles off Breach Inlet in Sullivan’s Island on the moonlit sea.

The Ship: A lookout aboard the Union Navy’s largest ship was tired, cold -- but restless. Talk of a Confederate secret weapon was in and out of his thoughts. Suddenly he spotted something move in the chilly waters. A porpoise? There were certainly a lot of them around. But something about this one didn’t seem right.

The Underwater Secret: While the cold bit through the lookout’s coat, 8 men poured sweat over hand cranks that powered a spinning propeller while their captain manned the dive planes - steering man, iron, anxiety and raw courage towards its final destination.

The Alarm: The alarm rang out. This was definitely no porpoise. Nor was it debris floating from a war-torn Fort Sumter. This was something bizarre. The ship’s cannons could not target an object so low in the water. Shots rang out and bullets ricocheted as other union sailors joined in the frantic firing of revolvers and rifles. The object continued to approach at about three knots.

Contact: Below the waterline - as bullets bounced off its cylindrical body, the H.L. Hunley rammed her long metal spar into the stern area, planting a 135 pound torpedo into the Warship Housatonic. The men inside the Hunley lunged forward from the impact, then quickly backed their sub out as the 150-foot attached detonation rope played out. Within seconds, the world rocked and every man, above and below, became enveloped in a concussion of destruction.

Aftermath: The explosion caused the USS Housatonic to burn for three minutes before sending the sloop-of-war collapsing to the bottom killing five sailors. The Hunley then
surfaced long enough for her crew to signal their comrades on the shore of Sullivan's Island with a blue magnesium light, indicating a successful mission. The shore crew stoked their signal fires and anxiously awaited the *Hunley's* safe return. But minutes after her historic achievement, the *Hunley* and all hands onboard vanished into the sea without a trace.

That night history was made. At the same moment, a mystery was born. The *Hunley* became the first submarine ever to sink an enemy ship. But why had she suddenly disappeared? What caused her to sink? And would she ever be found?

**The Hunley Today:**

Since the end of the War Between the States, explorers and treasure seekers have scoured the sea around the site of the fallen *Housatonic*, hoping to discover the *Hunley* and her crew. In the years following the Civil War, a reward of $100,000 was even offered by the great showman, P.T. Barnum, to encourage mercenaries to find the lost vessel. But as the years passed by, the story of the *Hunley* remained shrouded in mystery with her secrets hidden and her resting place unknown for well over a century.

The world would have to wait until the tools of modern technology could begin to unlock the secrets of the *Hunley*. In 1995, author and adventurer Clive Cussler found the *Hunley* resting on the floor of the Atlantic Ocean. Intact and remarkably well preserved, the *Hunley* was found buried deep within the sand and silt just outside of Charleston Harbor.

The recovery of the *Hunley* has turned out to be one of the most important single events in the history of South Carolina. After being lost at sea for 137 years, the *Hunley* was revealed on August 8, 2000, seen for the first time in her entirety, from bow to stern and top to bottom. It was indeed a remarkable moment in history.