

History was made on Wednesday, February 17, 1864, as a tiny submarine, the **CSS Hunley**, became the first of its kind to sink an enemy vessel, the **USS Housatonic**, off the coast of Charleston, South Carolina. The creator of this underwater vessel was Horace L. Hunley of New Orleans. For her construction Hunley hired engineer W.A. Alexander who left a detailed account of her building and operation. Over 25-feet in length and 4-feet in diameter, the **Hunley** possessed a propeller shaft that up to eight crewmen cranked by hand. Diving fins and ballast tanks aided in its surfacing and submerging. Its only weapon was a torpedo, a copper cylinder containing 90 pounds of gunpowder that would explode on contact by means of a percussion and friction primer. Originally attached to a 200-foot line and hauled through the water, the floating torpedo proved to be as much of a menace to its own crew as to the enemy. Consequently, the mine was mounted at the end of a 22-foot yellow pine boom attached to the bow. Thus equipped, the little **Hunley** was ready for war.

However, one fatal flaw existed in its construction: once submerged, the only way to replenish the oxygen supply was to resurface. Engineer Alexander stated simply that the crew cranked away in the stale air until, when they could no longer tolerate the choking sensation, one of them would shout “Up!” as a signal to surface. Alexander described one of the **Hunley’s** test runs:

Each man had determined that he would not be the first to say “up!” Thick darkness prevailed. All the hands had already endured what they thought was the utmost limit. Some of the crew almost lost control of themselves. It was a terrible few minutes....We soon had the boat to the surface and the manhead opened. Fresh air! What an experience!

They had been submerged two hours and thirty-five minutes. Moreover, the “*peripatetic coffin*,” as someone called it, became a deathtrap. “*She would sink at a moment’s notice*,” recalled an eyewitness, “*and at times without it*.” At least three crews were lost testing it: in one instance a heavy swell from a passing steamer poured into the open hatchway and drowned the eight men seated at the cranks. Miraculously, her commanding officer, Lt. John Payne, managed to escape. Even more miraculously, Payne volunteered for the next voyage. Within a week the **Hunley** broke loose from an attached steamer and, according to an eyewitness, “*went to the bottom in five fathoms of water like a lump of lead*.” Lt. Payne again barely escaped death and would not volunteer for another voyage. Angered by the negative publicity, inventor Horace L. Hunley decided to show how safe the little vessel could be and helped commandeer the submarine. Unfortunately, he too perished upon its third sinking. A contemporary described “*Captain Hunley’s body [being] forward, with his head in the forward hatchway, his right hand on top of his head....In his left hand was a candle that had never been lighted....*” By now at least thirty-three men had lost their lives aboard the **Hunley**.

Finally on the night of February 17, 1864, the **Hunley** approached the 1240-ton **Housatonic**. Although armed with a 100-pound Parrott rifle, 3 30-pounder Parrott rifles, 1 11-inch Dahlgren smoothbore, 2 32-pounder smoothbores, and 3 howitzers, the **Housatonic** succumbed to the torpedo of the **Hunley**. Unfortunately, the **Hunley** itself went down, taking its crew with it, for the final time.

On **MONDAY, SEPTEMBER 26**, MRRT members **Ron Cleveland** and **Larry Jackson** will team up to present the story of “**The Hunley**.” You will recall Ron’s fine program, “The Presentation Flag of Battery M, 1st Michigan Light Artillery,” from March 2004. Larry, of course, has given many outstanding programs to our group over the years. In late November 2004 Larry and Ron were given a 3 ½ hour personal tour of the remains of the **Hunley**. Their knowledge and passion for their subject will clearly shine. Slides and stories will abound. As Larry has stated, “People tend to think of the **Hunley** as ‘crude,’ but it was a highly modern and aerodynamic vessel.” Mark your calendars for this special presentation.



James Flatley, a longtime MRRT member and World War II veteran passed away on September 3. Few details are known but Jim had been ill and had not attended a meeting for well over a year. He was a fine man, a scholar with an infectious sense of humor, and he will be missed. Our condolences go out to his family.

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Our thanks to last month’s speaker, **Greg Biggs**, for his exceptional program, “*The Crack of Doom: The Collapse of Confederate Department No. 2.*”

FALL FIELD TRIP: Everything is set for a wonderful weekend (October 22-23) with MRRT Honorary Member Dennis Frye as our guide around Harpers Ferry and Antietam. Hopefully good weather will follow us to our destination. Have a safe trip, and remember we will get together on Friday evening at 7:30 P.M. at the Quality Inn in Harpers Ferry for a briefing.

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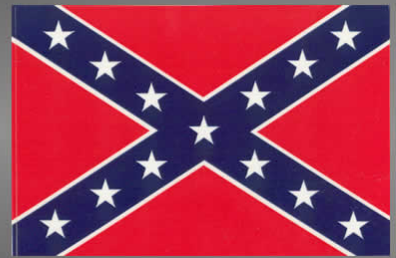
QUIZ: All questions pertain to events from the month of September.....

1. On September 14, 1861, which general formally complained to Jefferson Davis about his rank as the fourth highest general in the Confederacy? And, which 3 generals outranked him?
2. On September 1, 1862, Confederate forces under Stonewall Jackson fought the Federals in a driving rainstorm following Second Manassas. What two names are given to this battle?
3. Which two Federal generals were killed at this battle?
4. On September 5, 1862, John Pope was reassigned to Minnesota in order to help suppress which tribe of Indians? And, which Indian had led this revolt?
5. To whom and what was Robert E. Lee referring when he wrote on September 8, 1862: “This army will respect your choice whatever it may be”?
6. Which 2 Federal soldiers of the 27th Indiana Infantry are credited with finding “Special Orders No. 191” wrapped around 3 cigars on September 13, 1862? [Extra Credit: Which Frederick, Maryland towns person rode to tell Robert E. Lee of this astounding information?]
7. On September 17, 1862, Braxton Bragg captured which Kentucky town? And, who surrendered it to him?
8. On September 6, 1863, two Confederate generals fought a fatal duel over the question of one’s courage. Name the two combatants.
9. On September 22, 1863, which Confederate cavalryman began a raid through Arkansas and Missouri in the Trans-Mississippi West? And, on the same day which recently killed Confederate general did Abraham Lincoln mourn?
10. Which two Confederate Bushwhacker leaders led a bloody raid on Centralia, Missouri on September 27, 1864?

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No one seems to know exactly when or where the first underwater device carried a human being below the water’s surface, but numerous famous names have been associated in the concept: Aristotle, Herodotus, Pliny the Elder, Alexander the Great, Leonardo da Vinci, Roger Bacon, Dr. Edmund Halley (of Halley’s Comet fame), James I of England, James VI of Scotland, Archimedes, and Robert Fulton would head the list.

During the American Revolution, David Bushnell, a Yale student, innovated the use of mines or torpedoes. His craft, the **Turtle**, had a one-man crew which propelled the vessel, similarly shaped to a large ball, by means of a steering oar and two hand-driven screws, one for horizontal and one for vertical lift. Bushnell’s plans were to sneak up to the hull of an enemy ship, attach a keg of gunpowder by driving screws into the planking of the vessel, and a clock-controlled fuse was



to explode the mine after the sub had time to escape from the area. The plans failed, however, when it was discovered that the screws could not penetrate the copper covering on the enemy ship's hull.

As with the **Hunley**, a major problem for future submarine designers remained how to get a fresh supply of air below when the vessel was submerged. Halley's design could provide fresh air for a crew of five or stay underwater at a depth of 60 feet for well over an hour. Wilhelm Bauer's submarine, **Le Plongeur-Marin**, made 134 successful dives and at one time carried a small orchestra which, in the 1850's, rendered the Russian National Anthem so clearly that it could supposedly be heard completely across the surface of the harbor at Kronstadt.

The **David**, a Confederate submarine, was operated by a steam engine and carried a torpedo, containing about 60 pounds of gunpowder, on a long spar. On October 5, 1863, the **David** was put into action. However, one technicality had to be overcome: the question of the legality of the vessel as a "conventional" battle weapon. Was it legal, since it carried no ethical weapon? To offset the argument Lt. W.T. Glassnell, the commander of the vessel and its crew of four, carried a shot gun on board with him. Their target was the Federal ship **New Ironsides**, then resting at anchor in the Charleston harbor. As the sub approached, a lookout on the **New Ironsides** spotted the cockpit of the **David** and sounded the alarm. At fifty yards Lt. Glassnell opened fire with the shot gun and mortally wounded the deck officer. As the **David** neared the Federal vessel, the torpedo detonated against the **Old Ironsides** opening a gaping hole. Unfortunately, the swell generated by the explosion caused water to pour down the smokestack of the **David** which extinguished the boiler fires. All of the crew except the pilot, who could not swim, jumped overboard. But as the vessel drifted clear, Engineer James H. Tombs climbed back aboard, restarted the fires, and with the pilot brought her back safely. Glassnell and a fireman, however, were captured. The tiny **David** had won the first encounter with the Goliath **New Ironsides**.

Although the first meetings of submarines and their opponents were semi-comical, merely a half-century later the minnows had grown into sharks, and no one was laughing when, in 1917, German U-boats sank nearly three thousand ships and a total of 5,639,000 gross tonnage, along with thousands of lives and untold billions of dollars worth of goods.

QUIZ ANSWERS:

1. Joseph E. Johnston and Samuel Cooper, Albert Sidney Johnston, Robert E. Lee
2. Chantilly and Ox Hill
3. Isaac I. Stevens and Philip Kearny
4. Santee Sioux and Little Crow [Taoyateduta]
5. People of Maryland and possible secession
6. Pvt. Barton W. Mitchell and Sgt. John M. Bloss [Extra Credit: His name is unknown today]
7. Munfordville and Col. John T. Wilder
8. John S. Marmaduke killed Lucius Walker in a duel after Walker's courage was openly questioned
9. Jo Shelby and his brother-in-law Benjamin Helm
10. "Bloody Bill" Anderson and George Todd

Don't forget "*The Hunley*," presented by **Ron Cleveland** and **Larry Jackson** on **MONDAY, SEPTEMBER 26**. The meeting will begin at 6:30 P.M. at the Farmington Public Library (Grand River and Farmington Road). Bring a friend and show up early for the fellowship.

Also try our website: <http://www.farmlib.org/mrrt/>.