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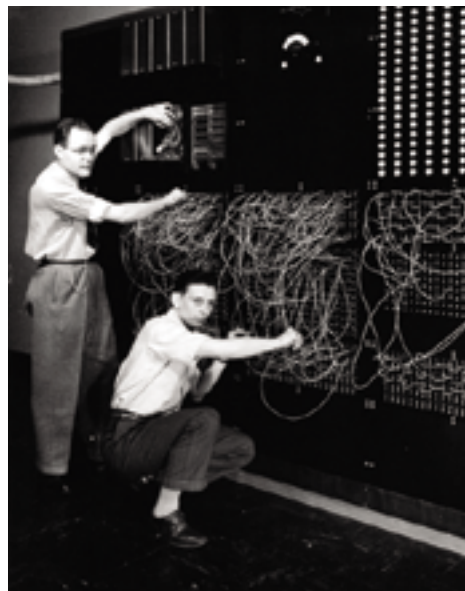
WELCOME OUR NEWEST STAFF MEMBERS



Pictured here are our newest HRNM staff members.

Educators from left to right are Diana Cox, a recent graduate of Christopher Newport University with a B.A. in Classical Studies and a former employee of the Mariner's Museum; Dane Smith, a 2012 graduate of Old Dominion University with a B.S. in Communications, and former HRNM intern; and Jordan Hock, a 2012 graduate of Hampton-Sydney College with a B.A. in Classical Studies and former HRNM intern.

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The majestic USS Minnesota as portrayed by the lithograph firm William Endicott and Company in an 1859 print. Her captain at the time of the Battle of Hampton Roads was the veteran naval officer Captain Gershom Jacques Van Brunt. (HRNM images)

USS Minnesota and the Fate of Andromeda

By Gordon Calhoun

In 338 A.D., the Roman Emperor Julian the Apostate wrote that myths were “for childish souls. I liken them to nurses who hang leather toys to the hands of children

is yearning for further knowledge. They poured in a stream of myths like men who water a thirsty field.”

More than 1,500 years later, mythology was still being used as a cultural touchstone for the masses. Contemporary observers often used words from mythology to describe America’s Civil War naval engagements like the Battle of Hampton Roads. Perhaps it was because the new ironclads defied standard maritime lexicon. Readers could grasp the concept of new technology by juxtaposing it against familiar stories from proverbs and mythology. They could gain comfort from finding familiar themes. Readers could also better assimilate the significance of the Battle and the changes that were to come in naval warfare.

Newspaper references to mythology

and religious proverbs abounded in the 19th century. Thus, readers readily accepted, without laughing, the *New York Times* description of CSS *Virginia* as “the mysterious marine monster” as she ascended up the Elizabeth River, or an observer’s actual description of *Monitor* and *Virginia* as a fight between a “pygmy versus a giant.”

In 1864, poet George Henry Boker attempted to describe *Minnesota*’s situation with an epic poem entitled “The Cruise of the Monitor.” Drawing upon the Old Testament tale of David versus Goliath, two of the poem’s stanzas read:

*Out of its den [Virginia] burst anew
When the gray mist the sun broke through
Steaming to where in clinging sands
The frigate Minnesota stands*

when they are irritated by teething, in order to ease their suffering. So those mythologists wrote for the feeble soul whose wings are just beginning to sprout, and who, though still incapable of being taught the truth,



Minnesota returning home to Boston from China, 1859. Before the war, writers, sailors, and the public at large praised Minnesota for her design and prowess. (Ballou's Pictorial-Drawing Room engraving)

*A sturdy foe to overthrow
But in a woeful plight to receive a blow.
But see!
Beneath her bow appears!
A champion no danger fears
A pigmy craft that seems to be
To this new lord who rules the sea
Like David of old to Goliath bold
Youth and giant by Scripture told*

Artists used similar imagery and verbiage. In many interpretations of the battle, artists placed both ironclads and *Minnesota* only a few yards from each other with *Monitor* standing in between *Minnesota* and *Virginia*. The result is a powerful heroic scene. In reality, *Virginia* was much farther away from *Minnesota*.

One well-known Greek myth offers a direct correlation to the Battle of Hampton Roads. It is the tale of the saving of the princess Andromeda by the hero Perseus, made famous to modern film audiences in not one, but two, Hollywood productions of *The Clash of the Titans*. By comparing this myth to the Battle of Hampton Roads, the lesser known, but pivotal, role of USS *Minnesota* is revealed.

The myth is a classic one of pride, anger and heroism. Ethiopian King Cepheus had

a beautiful and boastful wife Cassiopeia. When she bragged that she was more beautiful than the nymphs of the sea god Poseidon, the god became so angry that he set out to destroy Cepheus' entire kingdom. Poseidon sent his sea monster Cetus for this task. Desperately, Cepheus consulted an oracle who instructed him to sacrifice his daughter Andromeda by chaining her to the coastline's rocks. There she waited to be torn to bits, until her ultimate rescue by Perseus.

In the Battle of Hampton Roads, *Minnesota* played the role of Andromeda. Even in contemporary artistic prints she was portrayed, not as the fighting warship the Navy commissioned her to be in 1855, but rather as an inanimate trophy waiting to be seized or defended. The naval officers, both Confederate and Union, viewed her as such too. The Confederate Navy, flush with the success of dispatching both *Cumberland* and *Congress* on March 8, 1862, looked forward to sinking *Minnesota*, the North Atlantic Blockading Squadron's flagship. In return, the U.S. Navy made it its mission to use *Monitor* to stop *Virginia* and save *Minnesota*.

If *Minnesota* represented Andromeda, then CSS *Virginia* served as the monster Cetus, having slain two enemy warships on

the first day of the battle.

But playing the part of Andromeda was the unfortunate and unexpected position in which *Minnesota* found herself on that famous day. The ship was a major capital warship. For years, the ship had been the center of national and international attention. While walking the decks of the frigate in 1857, a writer for the *Saturday Evening Post* stated, "This is the art of the nineteenth century. The ancients built statues that only wanted speech, and temples that were silent forms of prayer. We build ships, triumphant and tremendous, that move with the pace of victory over the heaving deep, and are beautiful as the antique statues."

When the Navy commissioned her and her sister frigates of the *Merrimack*-class in the 1850s, European navies felt threatened by American warships for the first time since the War of 1812. The U.S. Navy recognized *Minnesota*'s prowess and looks by designating her to be the diplomatic vessel for an international conference in China. At the outbreak of war in 1861, the U.S. Navy made her the flagship of the Atlantic Blockading Squadron.

But all these laurels changed. In the Greek myths, the gods were a fickle bunch. They regularly changed their minds and enjoyed abusing their subjects for their own



Alfred Waud sketched the frigate USS St. Lawrence and steam frigate USS Minnesota in Hampton Roads in late 1861, shortly before the Cape Hatteras Expedition. (Library of Congress image)

amusement. Likewise, in a period of 48 hours, *Minnesota* went from Poseidon's personal champion to Poseidon's sacrifice.

In the center of this situation was Captain Gershom Jacques Van Brunt. The sixty-four-year old officer oversaw *Minnesota*'s daily operations and the ship's company. Like many of the U.S. Navy's senior officers on active duty in the early stages of the war, Van Brunt had a lengthy and full career in the Navy before the Civil War even started. Having received his midshipman's appointment in 1818, he had seen the world many times over and had seen combat on more than one occasion. He had fought pirates in the West Indies, served with Commodore Matthew Perry during the Mexican-American War, surveyed the coastlines of California and Oregon in preparation for new American settlers, and participated in the obligatory trips to the Mediterranean in between more active cruises. Contemporaries wrote that Van Brunt "was highly esteemed in the Navy for his talents as an officer as well as for his intrinsic worth." In addition to his forty four years of Naval service, the U.S. Patent Office awarded him Patent #20,597 in 1859 for his gun carriage design.

Despite *Minnesota*'s capabilities and Van Brunt's vast naval and combat experience, the old captain was nervous. In the days leading up to the battle, Van Brunt's ship laid at anchor off Fort Monroe, near four other large warships: *Cumberland*, *Congress*, *St. Lawrence*, and *Roanoke*, together with several steam tugs. It was a battle squadron capable of engaging and defeating any squadron of ships from Europe on the high seas of the Atlantic.

But Hampton Roads was not the Atlantic. It was an excellent harbor, but not a place for a large warship to conduct warfare.

Additionally, reports continued to filter out about CSS *Virginia*'s construction and her capabilities. On top of this, Van Brunt's flag officer, Louis M. Goldsborough, was nowhere to be found to coordinate a defense. "What are you doing?" Van Brunt bluntly asked his superior in a February 1862 letter. The two men had served with each other on many occasions. Van Brunt's son, a Harvard-educated architect, even served as Goldsborough's personal clerk at the time. This no doubt allowed Van Brunt to be more open and direct with his superior officer than Navy protocol would normally allow.

The man left in charge of the squadron in Goldsborough's absence, Captain John Martson, commanding officer of *Minnesota*'s sister ship USS *Roanoke*, did not share Van Brunt's uneasiness. For George Washington's birthday, Martson ordered the entire squadron to decorate their ships in full dress. On March 1, Martson had two of Van Brunt's most experienced engineers removed from *Minnesota* to inspect the boilers of another ship. Van Brunt objected on the grounds that his current engineering staff was not experienced enough to operate *Minnesota*'s extensive steam plant in combat should *Virginia* decide to attack. Martson dismissed Van Brunt's objection, as he believed that *Virginia* was not going to attack. At 12:45 p.m. on March 8, Van Brunt was proven correct and his fear came to fruition.

Watches on *Minnesota* heard signal guns

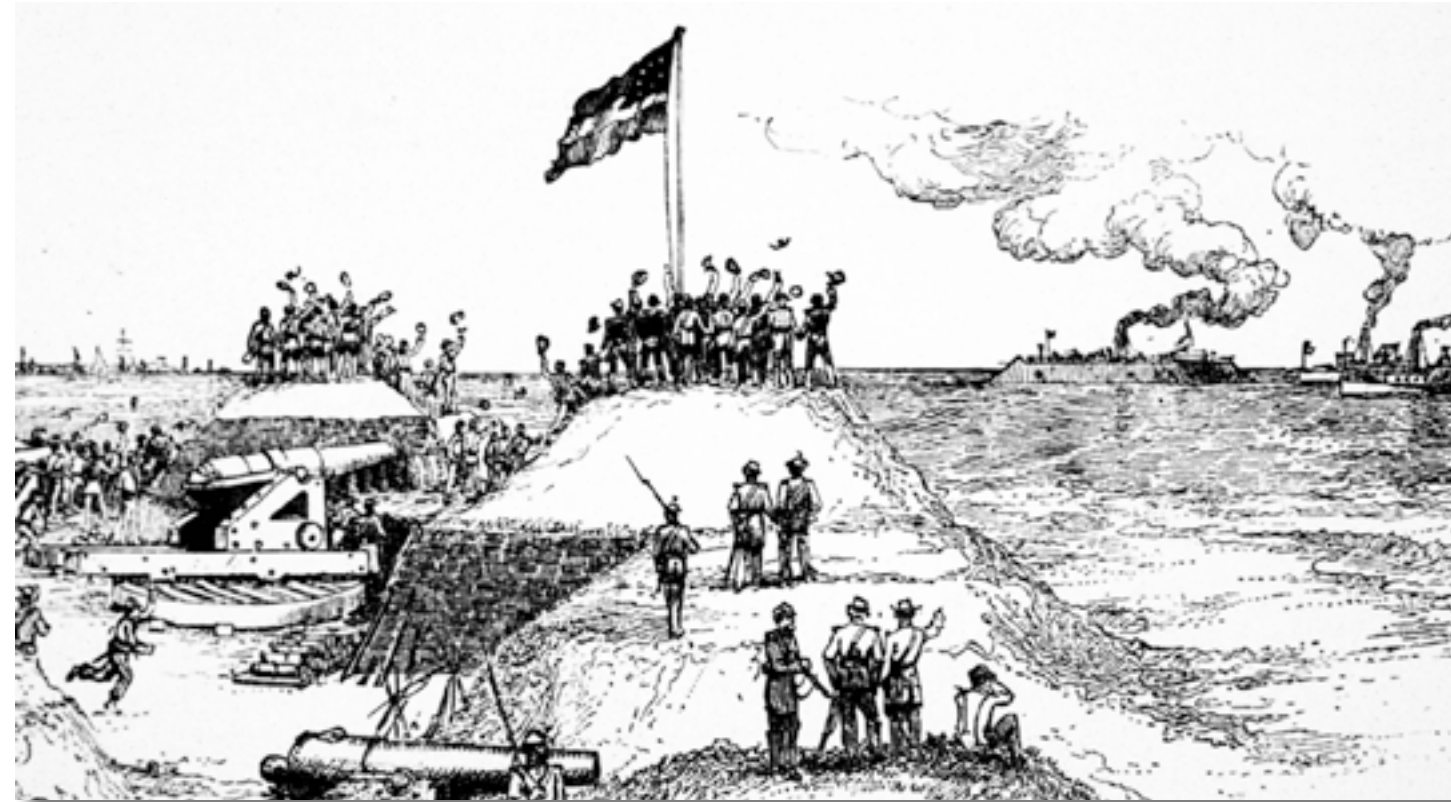
fired from *Cumberland* and *Congress* and immediately alerted Van Brunt. Upon seeing a single large smoke stack on an odd-looking vessel entering Hampton Roads, Van Brunt concluded that the vessel was *Virginia* and not a wooden gunboat like CSS *Yorktown*. Upon clearing Craney Island, the Confederate ironclad turned to the northwest and went straight for *Cumberland* off Newport News.

Based on a plan outlined before the battle, *Minnesota*, *Roanoke*, and *St. Lawrence* pulled in their anchors and proceeded west with the intent of engaging *Virginia*. *Minnesota* had some steam up and proceeded under her own power, while the other frigates required tugs to push them to the battle.

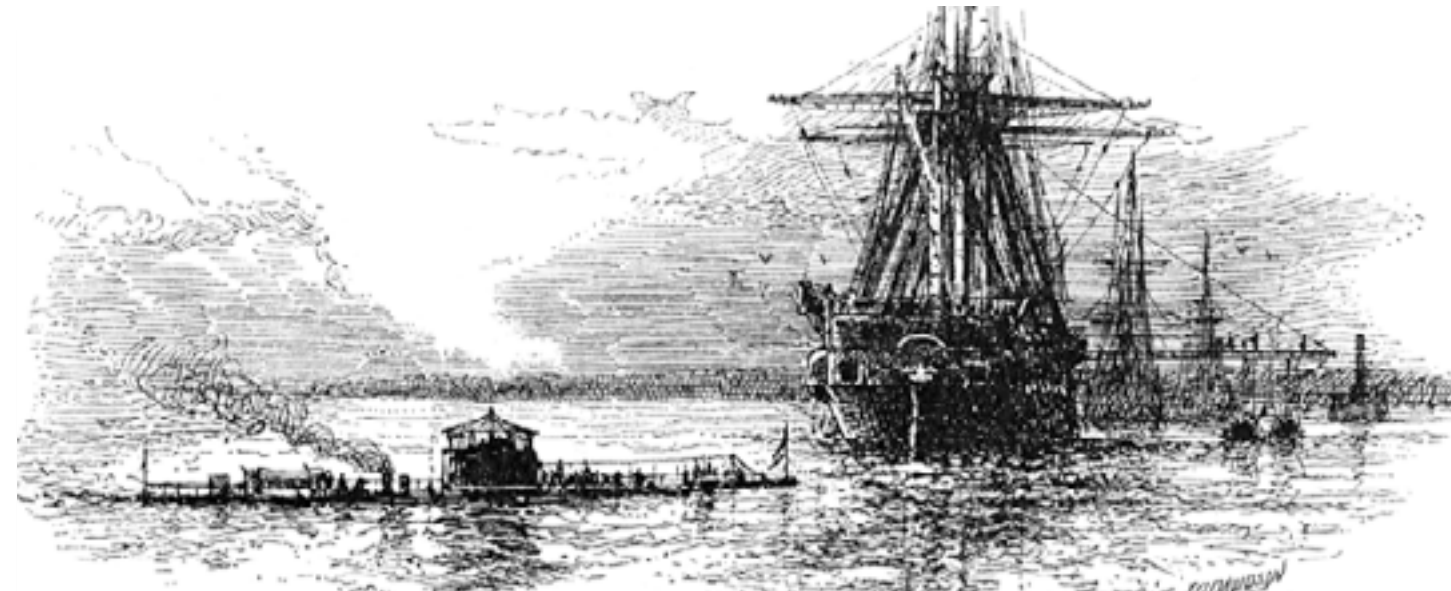


This is *Minnesota*'s own letterhead produced on the ship during the Civil War. As the flagship of the squadron, the ship received the first ever printing press for a U.S. Naval warship. The letterhead and the artwork were designed by an enlisted sailor named Charles Newhall. (HRNM image)

Van Brunt soon discovered that his more immediate problem was not *Virginia*, but the ebbing tide. With the tide working against his ship, *Minnesota* travelled less than a nautical mile over a period of thirty minutes. She then found herself under attack by Confederate shore batteries at Sewells



The “mysterious marine monster” known as CSS Virginia steams past the cheering garrison at Craney Island on March 8, 1862. Observers often used the word “monster” and other variations to describe the Confederate ironclad. (Battles and Leaders image)



Like any good story out of ancient Greece, USS Monitor is shown arriving in the nick of time to defend the U.S. Navy’s squadron from the Confederate monster on the morning of March 9, 1862. (Battles and Leaders image)

Point, and a few of the Rebels shells found their mark. One of them hit the ship’s main mast fourteen feet up, resulting in the death of two sailors.

The frigate pressed on to save *Cumberland*, but misfortune continued. Around 2 p.m., *Minnesota* struck the bottom of Hampton Roads. Specifically,

while attempting to navigate through the North Channel, a deep water section of Hampton Roads off the shores of the town of Hampton, the ship steamed out of the Channel into an area of water that was only seventeen feet deep. *Minnesota* drew twenty-three feet.

It is not exactly clear why the ship

was allowed to run aground, as none of the officers admitted fault in their official reports or in post-war memoirs. Likewise, the Department of the Navy never convened an official inquiry to investigate this incident or any other error that occurred during the battle.

Without an official explanation, reporters



This is one of hundreds of images depicting the Battle of Hampton Roads with all the participants crammed together in close combat. (HRNM image)

and historians were left to make an educated guess. *Harper’s Weekly*, for example, speculated that *Minnesota*’s harbor pilot was on shore during the operation, but this rumor was neither confirmed nor denied by the Navy. From looking at a map, it appears that *Minnesota* steamed due west from her anchorage off Fort Monroe and straight into the shallow water. In order for the ship to navigate the North Channel correctly, *Minnesota* would have had to steam southwest. This course, however, would have put the frigate directly against the tide and river current. Thus, it is possible that Van Brunt ordered the ship to tack, that is to proceed at an angle against the tide, in order to make some progress.

With the ship aground, *Minnesota*’s company did its best to assist *Cumberland* and *Congress*. Unable to maneuver, the only two guns capable of participating were the ship’s X-inch Dahlgrens mounted on the main deck on pivots. The Confederate squadron, however, was too far away. Van Brunt attempted to free the ship by setting the engine to full reverse and reversing some of the sails. This only managed to wedge the ship deeper into the mud. He later reported that he believed that the recoil from the ship’s guns caused the ship to push further into the shallow water. This explanation does not seem likely, as the guns were not powerful enough to move a ship the size of

Minnesota.

By 4 p.m. *Congress* was on fire and *Cumberland* had been sunk. The three-ship Confederate squadron then turned to the



This Harper’s Weekly engraving of the March 9 battle is less dramatic, but significantly more accurate, as it shows the battle between Monitor and Virginia farther away from Minnesota. (Harper’s Weekly engraving)

major prize, *Minnesota*. *Patrick Henry* took the lead and fired at *Minnesota*’s bow. With no means of turning the ship to unleash the frigate’s massive broadside of IX- and VIII-inch Dahlgrens, *Minnesota*’s company was forced to improvise. The ship’s gun crews untied some of the guns from the ship’s port side and pushed them forward to the bow. A *New York Times* reporter wrote, “What a position for us! Fast aground... We could not move, while the shells of the enemy hissed incessantly about us. The [*Virginia*] and her allies were now coming toward us, and we confidently expected the fate of our lost friends of the *Cumberland*.”

Patrick Henry and *Minnesota* commenced

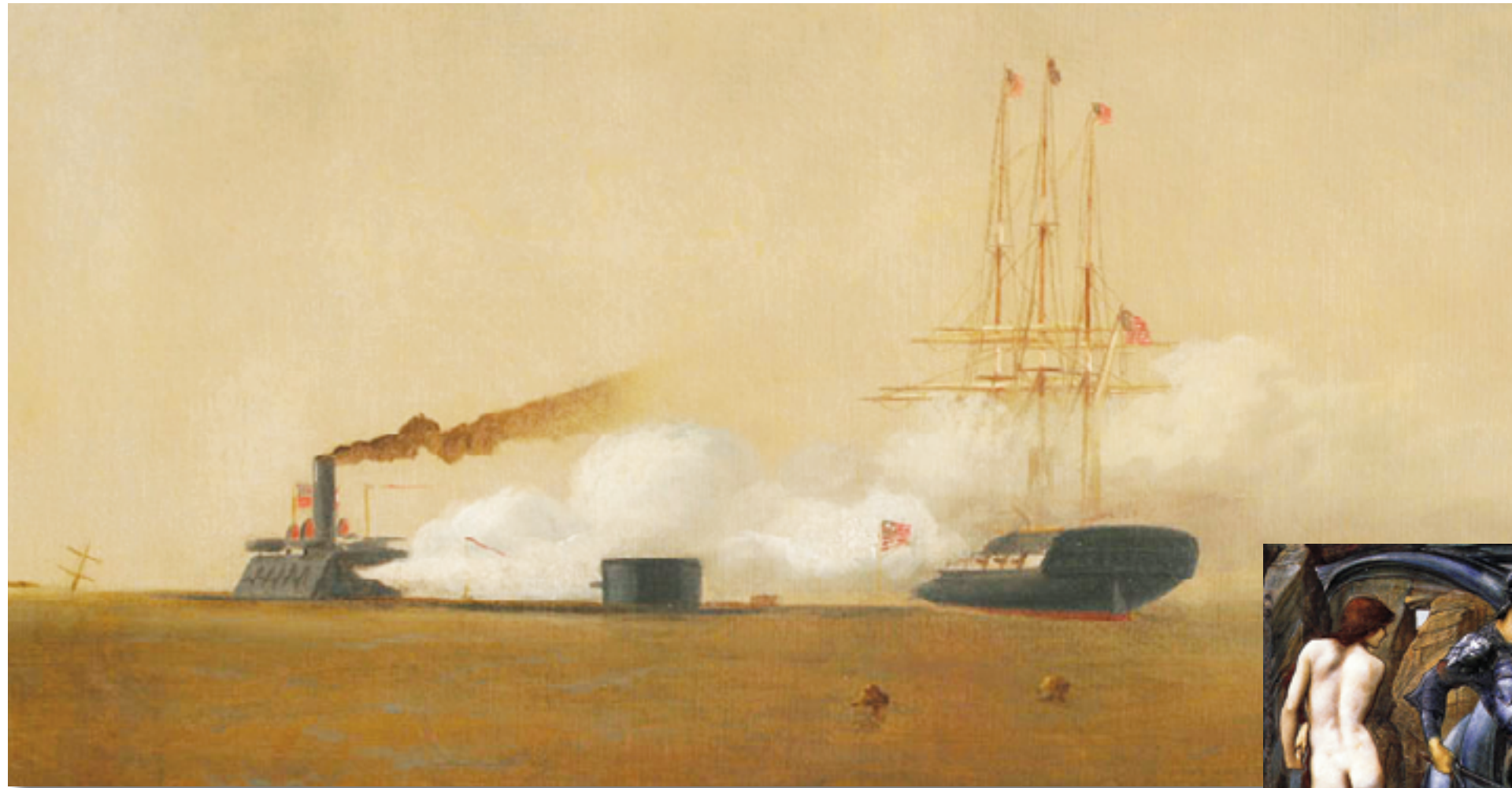
exchanging shots. U.S. Army shore batteries also took shots at the Confederate steamer. One of *Patrick Henry*’s officers, Lieutenant Henry Rochelle, later recalled, “It soon became evident that no wooden vessel could long float under such a fire. Several shots struck the hull and a piece was shot out of the walking beam.” CSS *Jamestown* soon joined in the attack on *Minnesota*. Both ships’ rifled guns hit the frigate several times.

A shot either from the shore batteries or from *Minnesota* then hit one of *Patrick Henry*’s boilers. Only through the quick action of the ship’s engineer did the steamer not explode, but the vessel was now crippled and unable to move. *Jamestown* came alongside *Patrick Henry* to tow the stricken steamer out. Both ships then retired from the field of battle.

While *Minnesota*’s batteries kept the wooden Confederate steamers at bay, they could not deter *Virginia*. The ironclad slowly but surely made her way toward the stranded frigate and fired. *Minnesota* returned fire with X-inch solid shot but failed to do any harm. *Minnesota*’s earlier misfortune of running aground saved the ship, at least temporarily. John Taylor

Wood, an officer aboard *Virginia*, later recalled that the ironclad’s pilot warned against going any closer to *Minnesota*. The frigate was already in shallow water and the ebbing tide was making it worse as the day wore on. According to Wood, *Virginia* never got closer than a mile and there was not enough time in the day to move the ironclad into a more advantageous firing position. As a result, only one shot from *Virginia* actually hit the frigate. Satisfied with its accomplishments, the Confederate squadron withdrew to Gosport to make preparations for a second attack.

As day turned to night, *Minnesota*’s company simultaneously prepared to fight



Alexander Charles Stewart's painting of the second day of the Battle of Hampton Roads dramatically, but somewhat inaccurately, portrays CSS Virginia attempting to destroy Minnesota with USS Monitor standing in her way. At right is Sir Edward Coley Burne-Jones' 1895 interpretation of the hero Perseus battling Cetus and saving Andromeda. (HRNM images)

a second round with *Virginia* and to remove the ship off the mud bank. The ship's company loaded on board 100 IX-inch solid shot from Fort Monroe to restock the ship's ordnance. At the same time, several of the North Atlantic Blockading Squadron's tugs, including USS *America*, *Whitehall*, *Dragon*, and *Zouave* tried in vain to push the ship off the bank into deeper water. High tide occurred at 2 a.m. and one last desperate attempt was made, but this also failed. It was at this point of failure that Perseus arrived in the form of USS *Monitor*.

Lieutenant Dana Greene, *Monitor*'s executive officer, came on board *Minnesota* and reported in. Van Brunt commented that he never felt so relieved in his life. "All aboard felt we had a friend who would stand by us in our hour of need," he wrote the next day. Van Brunt's praise stood in stark contrast to the criticism leveled by other Union officers, who wondered at the time if *Monitor* was fit for the job. Van Brunt,

at that moment, seemed to think she was.

As daylight broke, *Virginia* came out of the Elizabeth River and charged toward *Minnesota*. What happened next is the legendary battle between the two ironclads as *Monitor* slipped out from behind the huge frigate and accepted *Virginia*'s challenge. Van Brunt watched as *Virginia* tried to get closer to *Minnesota*, only to have *Monitor* stand between them.

But if Van Brunt had supreme confidence in *Monitor* when the Union ironclad first arrived, he lost some of it during the battle. His confidence began to shake when *Monitor* withdrew from the contest and headed toward Fort Monroe. The captain believed that *Monitor* either had expended all of her ammunition or had been seriously injured. Of course, neither Van Brunt nor anyone else knew the true reason for the withdrawal, except the men in *Monitor*'s pilot house. Worden had been temporarily blinded by a shell that exploded close to the pilot house.

Not knowing the damage to the ship or to himself, Worden ordered *Monitor* to retreat temporarily. As he was being taken down below, his last orders to Greene were to do whatever it took to defend *Minnesota*.

With the Union's hero removed, *Virginia* turned back to *Minnesota*. Upon seeing this, Van Brunt's confidence in *Monitor* faded. He wrote, "I felt the fullest extent of my condition. I was hard and immovably aground and [*Virginia*] could take position under my stern and rake me. I had expended most of my solid shot and my ship was badly crippled and my officers and men were worn out. But even then, in this extreme dilemma, I determined never to give up the ship to the rebels."

After talking it over with his division officers, Van Brunt ordered his men to make preparations to burn the ship. Van Brunt's executive officer, Lieutenant Edward C. Grafton, organized parties to offload the ship's wounded to the tugs. The order

mud. Greene later wrote that Worden asked him from his bed how the battle was going. When Greene reported that *Minnesota* had been saved, *Monitor*'s commanding officer replied, "Then I may die happy." Of course, Worden did not die, but lived on as a legend for several more years.

For his part, however, Van Brunt did not know the state of *Monitor* or *Virginia*, or even if any other Union ships were coming to help. Thus, he was determined to get the ship off the bank quickly through his own efforts. At 2 p.m., he ordered the removal of all twelve of the VIII-inch Dahlgrens from the gun deck and the ship's company threw them overboard. Another effort was then made to move *Minnesota*. The Army garrison at Fort Monroe released the large steamer *J.R. Spaulding* to help pull while tugs pushed. This rescue attempt went on for several hours before low tide forced them to stop. Work resumed with high tide and finally, at 2 a.m. on March 10, *Minnesota* was freed. The rescue by *J.R. Spaulding* was a foreshadowing of her work in the months ahead. She would later serve with the U.S. Sanitary Commission and would ship hundreds of wounded soldiers off *Virginia*'s battlefields.

The wooden *Minnesota* came through the Battle of Hampton Roads only slightly damaged. After inspecting the interior of the ship on March 9, the ship's carpenter recorded that the frigate had been hit only twelve times, none in critical areas. Some of the shells actually went through her and hit the tugs on the other side. The human cost was also rather light. Fleet Surgeon William Maxwell reported that only four of *Minnesota*'s sailors died in



turned into chaos as several panicked sailors misunderstood Grafton's instructions and thought he said "all hands abandon ship." Grafton and other officers drew their cutlasses and ordered the sailors back to their stations. The officers quickly restored order.

Fortunately, fate again saved the ship. *Virginia* had once again grown tired of battle and did not engage *Minnesota*. Rather, she retired back to Gosport. With this change in the situation, *Minnesota*'s company stopped making preparations to scuttle the ship and restarted attempts to free the frigate from the

action, all of them when the shell hit the ship's mizzen mast. Otherwise, only twelve sailors were injured. Three of them were members of the ship's band and two were African American landsmen. In short, Perseus had saved Andromeda.

Minnesota stayed in Hampton Roads on and off throughout the war, continuing her role as the flagship of the North Atlantic Blockading Squadron. The large vessel continued to be a tempting target for the rest of the war. Confederate torpedo operators unsuccessfully attempted to sink the ship

with explosives later in the war.

As for Van Brunt, he stayed on as the ship's captain for only a few more weeks before asking to be relieved. His health took a turn for the worse, no doubt owing to the tense forty-eight hours of March 8 and 9. He died a few months later in New York City.

Despite having a perfect vantage point, no *Minnesota* officer went public with his memoirs of the battle. Greene, however, did. In his essay for *Century* magazine about the battle, Greene penned a very bitter commentary on Van Brunt's actions. In the essay, Greene wrote inflammatory sentences such as, "Captain Van Brunt officially reports 'I made a signal for *Monitor* to attack the enemy.' But the signal was not seen by us. Other work was in hand and Commander Worden required no signal."

It is possible that Greene held a certain contempt for *Minnesota*. Because of the frigate, Greene could not pursue *Virginia* since he had orders to protect *Minnesota*. In the years after the war, veterans and writers denounced Greene as a coward for not going after *Virginia* more aggressively. Shortly after writing the *Century* magazine essay in 1883, Greene shot himself.

After the war, *Minnesota* stayed in service as both a flagship to overseas squadrons and later as a training vessel and depot for new recruits. Over time, she became a minor celebrity as the only surviving ship to have participated in the Battle of Hampton Roads. In 1901, the frigate's life came to an end. Secretary of the Navy John Long ordered *Minnesota* to be stricken from the Navy's list and sold. As had happened for many other historic ships, some called for the frigate to be saved. But a Boston-based salvage company won the auction and made plans to break up the ship.

Ironically, the company that purchased the ship wanted her not for her wood, but for her metal. The company made plans to give the ship a funeral worthy of a viking *jarl* by setting the hull on fire on the shores of Eastport, Maine. As the local tides ran twenty-four feet, workers anchored the ship near the coastline and then waited for low tide and dry land.

After selling off the ship's wooden fixtures to the locals, workers soaked *Minnesota* in kerosene and set her on fire. The company believed it would only take one day for the ship to completely burn. But the frigate refused to die easily. Her wooden hull burned for two weeks. 🗑️

Book Reviews

*Stalking the U-Boat:
U.S. Naval Aviation in Europe
During World War I*
By Geoffrey L. Rossano
Reviewed by Ira R. Hanna

Sometimes it is difficult for the author of a history book to select an appropriate title. The title chosen often refers to actions that only cover one aspect of the actual topic. Often, the subtitle more aptly describes it. But even that does not always fully discuss what the author has researched and written about. It appears that this is such a book.

Rossano's purpose was to examine in detail how the Navy forged an air force during World War I between 1917 and 1919.

Geoffrey L. Rossano. *Stalking the U-boat: U.S. Naval Aviation in Europe During World War I*. Gainesville, FL: University Press of Florida, 2010. ISBN 978-0-81303-488-1

When the United States entered the war (April 1917), the Navy possessed only fifty-four planes, most of which were obsolete, and fewer than 300 pilots and personnel holding aviation ratings. Immediately, the Navy ordered over 200 aircraft and started training more than 500 pilots and aircraft maintenance personnel at the eleven stateside stations. Even as unprepared as the Navy was in 1917, it began to build naval air stations in Europe. By the end of the war, twenty seven naval air stations and fifteen facilities had been established in England, France, and Italy. The focus of this book is not on the stations in America, even if their pilots were also "stalking the U-boats," but on developments in Europe, because that was where the Navy met and solved the enormous organizational, logistical, personnel, and operational challenges posed by war.

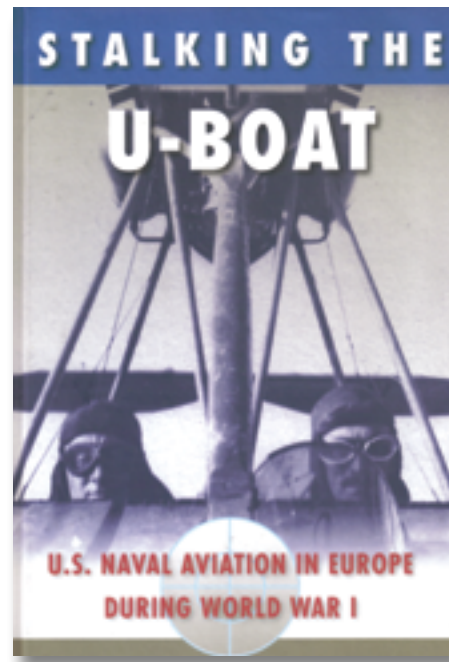
Although Rossano's study of the twenty seven American naval patrol and bombing stations in Europe during World War I did establish their purpose (to protect convoys and hunt down and destroy German U-boats), most of the book analyzed the

organization and operation of those stations. There were two worlds operating in each station – one "on duty" that focused on antisubmarine missions including the Navy's highly structured approach to time, work, order, rank, and discipline; and the other, "off duty" leisure time, recreation, athletics, pets, leave and liberty. Rossano discusses both quite thoroughly.

On the other hand, he does not give enough attention to the connection between the eleven naval air stations on American soil and in Europe. Those American stations, N.A.S. Norfolk in particular, trained and supplied the pilots and maintenance personnel that manned the European stations. For instance, many of the pilots and ground personnel in the Reserve Flying Corps, including many members of the First Yale Unit, Princeton, Harvard, and the entire class from M.I.T. (mechanics) were trained at Norfolk. One of them, Lt. (jg) Godfrey DeCourcelles Chevalier, became the commanding officer of N.A.S. Dunkirk in France and Eastleigh in England. Chevalier was recognized as a superior pilot and was the first to be launched from a permanent shipboard catapult. Unfortunately, he was accidentally killed testing a plane in Hampton Roads after the war.


This book was not a top-down institutional study, but rather one from the perspectives of commanding officers, their pilots and the ground crews that supported them. It told the story of how the men and materials necessary to establish bases on foreign soil were transported across the Atlantic and how those bases began operations. Rossano analyzes those operations in terms of doctrine and effectiveness. He discusses how pilots and crews felt about their missions and how they accomplished them. He tries to put a human face on those activities – the boredom of long patrols, the excitement of bombing raids, and dogfights, even leisure activities at the bases, and of course, the difficulties working within the traditions of the Navy.

Rossano concludes that naval aviation had



little impact on the conduct or outcome of the war. Rather, it was the reverse - the war actually help to shape naval aviation. The war challenged naval aviation during the stressful years of 1917 and 1918. The solutions formed the foundation upon which naval aviation was built during the next twenty years and helped it prepare for World War II. By the end of the war, naval aviation had been transformed in size, expanded its missions, and had laid the basis for growth during the 1920s and 30s that placed the U.S. Navy in the forefront of the leading naval air forces in the world.

A recent *Virginian-Pilot* newspaper article by Kate Wiltrout, entitled "Admiral: Future of Naval Aviation Bright," called to mind how naval aviation began in 1910 and how far it has come. It began, "Lots of armchair admirals like to opine that in the not-too-distant future, the flight deck of an aircraft carrier will be a lonely place, full of small aircraft operating without any humans aboard. Seven actual admirals from the Navy and Coast Guard offered a different assessment. Yes, they said, unmanned aircraft will play a huge role in the second century of naval aviation. But humans will toil in cockpits and on flight decks for decades to come."

Naval aviation began right here in the Chesapeake Bay. By World War I, it was firmly established. 

*Fighting for MacArthur: The Navy and Marine Corps'
Desperate Defense of the Philippines*
By John Gordon
Reviewed by Gordon Calhoun

In his work *Fighting for MacArthur*, author John Gordon documents the contribution of U.S. Navy and Marine Corps personnel to the American defense of the Philippine Islands during the early stages of World War II. The U.S. Army's operations and the tragic outcome in the 1941-42 Philippine Campaign has been well documented over the years. Outside of a broad sketch of the U.S. Navy's Asiatic Squadron and the heroic dash by USS *PT-41*, the U.S. Navy and Marine Corps' role in this campaign has not been previously

John Gordon *Fighting for MacArthur: The Navy and Marine Corps' Desperate Defense of the Philippines*. Annapolis: Naval Institute Press, 2011. ISBN 978-1-61251-057-6

analyzed. The author's stated goal of the work is for the reader to better appreciate the heroic efforts made by Sailors and Marines to help the U.S. Army resist the Japanese offensive.

Japan's campaign to conquer the Philippines began shortly after the December 7, 1941 air raid on Pearl Harbor. It lasted until May 8, 1942, when General Jonathan Wainwright ordered all U.S. forces to surrender. The author recognizes that the overall defense and majority of the fighting was done by the U.S. and Filipino ground forces. But Gordon's work shows that Navy and Marine Corps personnel made significant contributions that prolonged a campaign that the Japanese high command believed would be over by the end of January 1942.

In this book, the reader learns about the importance of ships, that, on paper, seem to not be that important. After the Navy withdrew heavy warships like USS *Houston* (CA-30) from the Philippines to join up with Allied forces farther south, it only had a patchwork task force of PT boats, submarines, Filipino patrol craft, Yangtze

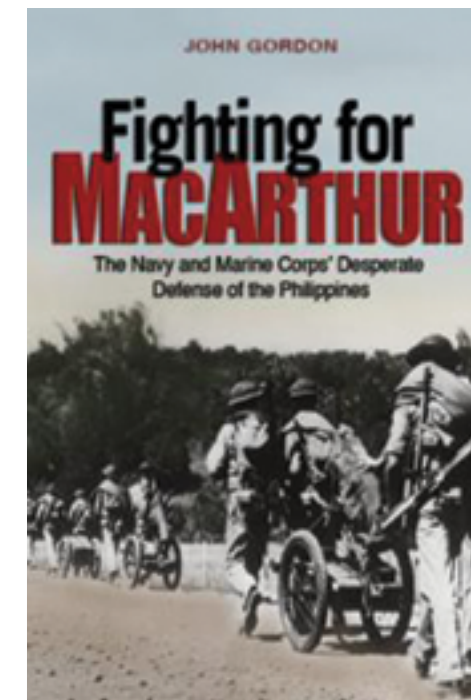
River gunboats, tugs, and minesweepers to defend local waters. The author holds special reverence for the "Old Lady," USS *Canopus* (AS-9), a World War I-era submarine tender that served as the Bataan and Corregidor defenders' only machine and repair shop throughout the campaign.

The work documents the myriad of operations Sailors and Marines conducted. This includes several small ship actions, submarine attacks on Japanese surface ships, Sailors and Marines manning anti-aircraft and some of the Army's coast artillery guns, even as infantry engaged in close combat.

The reader also learns about the invaluable work of the U.S. Navy's Station C radio intercept detachment. Stationed in the Philippines, this top secret team of cryptologists monitored and deciphered Japanese military radio traffic from the 1920s until their evacuation in April 1942. Their efforts ultimately led to the Navy being able to break many of the Japanese Navy's codes. In particular, it was Station C's cryptologists who helped determine that the term "AF" in Japanese message traffic referred to Midway Island. This valuable piece of information would later be used by the Navy's high command to conclude that Japanese forces were preparing to attack Midway in June 1942.


The history is a well-documented work that relies heavily on primary sources. It mainly views the Navy and Marine Corps' role from the tactical operations level and has left most of the discussions of the strategic importance of the campaign to others.

It is clear from the beginning of the history that Gordon does not think highly of MacArthur, and he heavily criticizes the general's actions and motivations during this campaign. Gordon, for example, believes that MacArthur's flawed plan to defend the Philippines was not helped by the fact that the general did not cooperate with U.S. Navy counterparts in generating



a workable joint strategy. On the other hand, Gordon has great respect for Admiral Thomas C. Hart, Commander-in-Chief of the Asiatic Squadron, and his staff for their professional demeanor during what was an almost impossible situation.

Lest one think that Gordon has let his own career influence his interpretation, it should be noted that Gordon is neither a retired U.S. Navy nor a Marine Corps officer. Rather, he is a retired U.S. Army lieutenant colonel. To be fair to MacArthur and the U.S. Army, Gordon does document several tactical and strategic mistakes made by the Navy. For example, the Navy relied too heavily on its untested submarine force to stop the Japanese invasion fleet.

Despite the straight-forward, factual nature of the work, this book is emotionally gut wrenching. The reader knows there will be no relief column arriving from Pearl Harbor or Darwin, Australia. The reader also knows that in the end, and despite their best efforts, many of the Sailors and Marines end up as prisoners-of-war alongside their U.S. Army and Filipino counterparts. But the author shows that despite this hopelessness, Navy and Marine Corps personnel, like their Army brothers-in-arms, did more than could have ever been expected of them. Gordon correctly shows that these men deserve praise as high as other U.S. Navy heroes received during the war. 

The *Monitor* Won...Here's Why

While looking at the museum's Battle of Hampton Roads exhibit, a visitor many years ago asked your Museum Sage who won the battle. The Sage retorted, "Are you from the North or the South?" The visitor replied, "Well, I am from England. I suppose you should give me the Southern version."

Who won and who lost is a frequently asked and debated question in military history. After all, why go to the trouble of fighting battles and wars if someone didn't win? For the Battle of Hampton Roads, the simple, easy answer that will not get you into trouble is that it was a tie, as both



The Museum Sage

the ironclad CSS *Virginia* and USS *Monitor* were still floating at the end of March 9, 1862.

But, let's be honest, ties are un-American. We don't like them. Ties are one of the principal reasons Americans shy away from soccer, a sport that frequently ends in ties after ninety minutes of play. We created "sudden death" overtime in our sports to prevent such an evil outcome. We want results, and ties are not results. It is why some of us still fret about the outcome of the Korean War. ("MacArthur should have been allowed to nuke China!!" is a common charge.) It is also why we tend to yawn at the vague and intangible results of the War of 1812. ("It truly made us one nation" is a common theme.)

Over the last 150 years, some writers and even participants have attempted to produce

an interpretation whereby one of the ironclads won the Battle of Hampton Roads. It gives the battle some meaning beyond the interpretation that the conflict between the two ironclads was a showcase of emerging maritime technologies. *Virginia's* veterans loudly claimed after the war that their ship won the battle because *Monitor* was severely damaged, disengaged from *Virginia*, and refused to fight again. *Monitor's* veterans refute this belief by stating that their orders were to protect the steam frigate USS *Minnesota* at all costs, not necessarily to sink *Virginia*.

Maritime history professor Robert Welter Daly laid out a rather lengthy argument in the 1950s for a *Virginia* victory in his work *How the Merrimac Won: The Strategic Story of the CSS Virginia*. Daly argued that *Virginia's* goal was never to break the Union blockade in Hampton Roads. "*Virginia* was a harbor-defense vessel," he wrote. Even if *Virginia* swept the U.S. Navy from Hampton Roads, Daly continued, there would be legal discussions over whether or not the blockade was actually lifted. In fact, in Daly's interpretation, *Virginia's* victory had nothing to do with *Monitor* at all. It is his belief that since Major General George McClellan had to change his plans to capture Richmond via the Virginia Peninsula because of *Virginia's* presence in Hampton Roads, *Virginia* won. The argument states that since McClellan could not readily use the James River, his campaign was delayed, giving Southern forces time to defend Richmond.

Leaving aside the more complicated reasons for the "Little Napoleon's" reputation as a commander and his record during the Peninsula Campaign, and with all due respect to Professor Daly, *Virginia* did not win. USS *Monitor* won.

Here is why: *Virginia* and all the other Confederate ironclads may have been just "harbor-defense vessels," as Daly wrote. But the overriding objective of the Confederate Navy was to get the blockade runners in and out of ports. This point



cannot be over-emphasized enough. The number one goal of the Confederate Navy was to ensure a steady supply of English and French war materials, not to sink U.S. Navy warships. In order to do this, the blockade did not necessarily have to be cracked in half, only kept at bay. Hampton Roads was among the first port to be blockaded and it stayed that way for the entire war. Not one blockade runner entered Norfolk. This is possibly why the Confederate ground forces gave up the city so easily to Union ground forces in May 1862. There was nothing to gain by contesting control of it.

When Confederate Secretary of the Navy Stephen Mallory first heard about *Virginia*, he envisioned the ship as a blockade buster, not a harbor defense vessel. It was his intention to aggressively use his ironclad. "It is believed," Mallory wrote, "that thus prepared she will be able to contend successfully against the heaviest of the enemy ships, and to drive them from Hampton Roads and the ports of Virginia." Thus we have *Virginia's* mission - to clear Hampton Roads of U.S. Navy ships. *Monitor's* mission was to prevent this. *Monitor* succeeded in containing *Virginia*. *Virginia* did not succeed in breaking the blockade or even sweeping the Union squadron from Hampton Roads. 🇺🇸

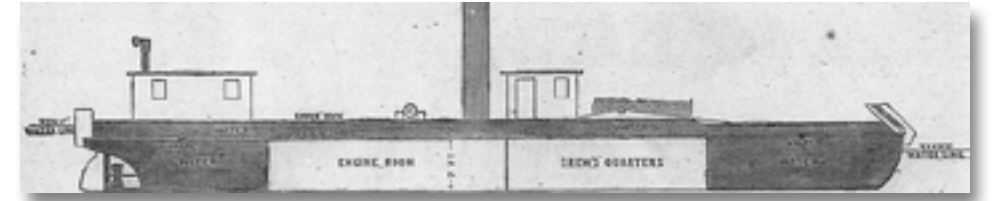
U.S. Revenue Cutter Service Gunboat *E. A. Stevens*: A Civil War Experiment in Modern Naval Technology

By William H. Thiesen, Ph.D.
Coast Guard Atlantic Area Historian

The United States Revenue Cutter Service played a unique role in the nineteenth century technological transition from wood and sail to iron and steam. In the 1840s, it built some of the Federal government's first iron ships. The service also adopted John Ericsson's successful screw propeller and experimented with the unsuccessful Hunter horizontal wheel propulsion system. The Revenue Cutter Service's Civil War-era gunboat *E. A. Stevens* serves as another example of the Revenue Cutter Service's willingness to experiment with untested naval technology. This unique vessel also testifies to the wealth of innovations based on iron and steam, introduced by New Jersey's Stevens family, the period's most prolific family of marine engineers and inventors.

In 1856, engineer Robert Stevens passed away, leaving his younger brother Edwin to oversee reconstruction of USRC *Naugatuck* into a unique steam gunboat. By 1861, Stevens had purchased the vessel to experiment with innovations associated with the much larger Stevens Battery, which still sat unfinished on the Stevens' shipways in Hoboken. The

reconstructed *Naugatuck* would prove revolutionary in many ways and included a number of patented innovations. In 1861 and early 1862, Stevens rebuilt the deck arrangement to support one heavy cannon fixed amidships on a unique mount of his design. Stevens replaced the original drive train with the Stevens family's unique twin propeller arrangement. He also incorporated ballast tanks fore and aft within the original iron hull. The *New York Times* reported on March 22, 1862,



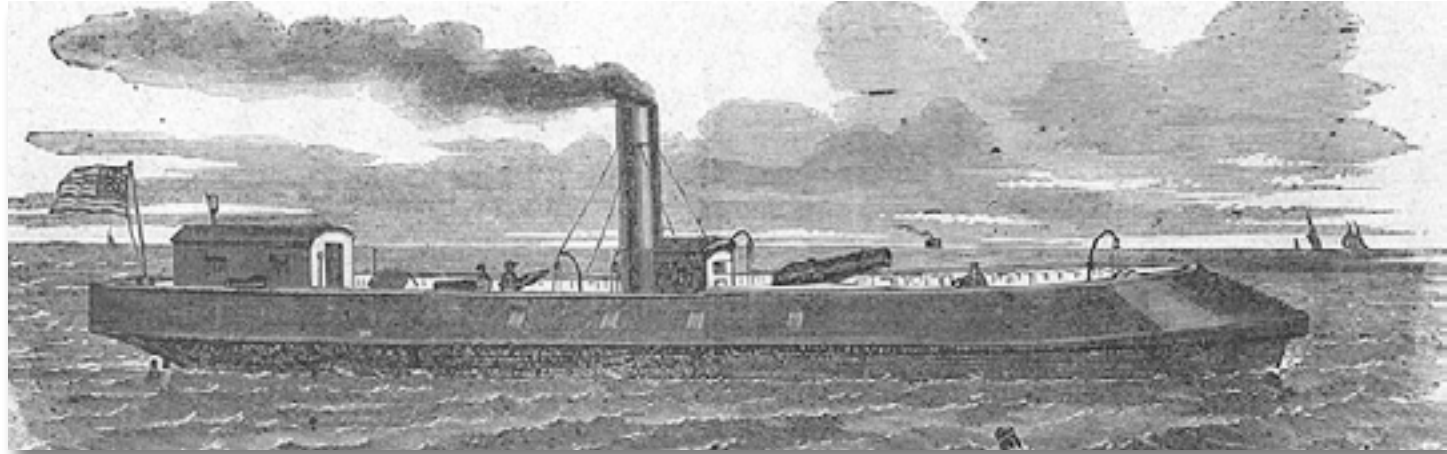
The Stevens brothers, Robert Livingston and Edwin Augustus, were 19th century engineers who specialized in transportation technology, including railroads and steamships. The two men designed a small ironclad warship with several innovations named *Naugatuck* in the 1850s. With the outbreak of war in 1861, the U.S. Revenue Cutter Service took charge of the ship and sent it to Hampton Roads. (Harper's Weekly engraving (at top), Stevens brothers engraving from The Stevens Battery (at bottom)).

that "The *Naugatuck* is not intended to be a model of Mr. Stevens' iron-clad battery, but is designed to illustrate one or two novel ideas connected with that monstrous engine of war, viz: The ability to sink and raise a vessel with great rapidity; to turn and manage her by means of two propellers located one on each side of the stern; also, taking up the recoil of the gun by means of India-rubber." During this conversion, Stevens named the small iron ship for himself; however, many contemporary newspapers and later historians mistakenly termed the *E. A. Stevens* "the Stevens Battery."

Edwin Stevens intended his little gunboat to operate in the shallow inland waterways of the South. To fulfill his goal he designed ballast tanks in the iron hull located both fore and aft. The tanks also incorporated a patented new gum elastic liner Stevens used to ensure the tanks' watertight seal. These ballast tanks made *E. A. Stevens* a semi-submersible, allowing the vessel to submerge from three feet to an overall depth of nine feet. This lowered the gunboat's profile, thereby minimizing the vessel's exposure to enemy fire and placing

the vessel's vulnerable steam machinery below the waterline. Edwin Stevens equipped the tanks with heavy-duty Andrews Centrifugal Pumps that could fill the tanks in just eight minutes. Conversely, if *E. A. Stevens* ran aground while ballasted, pumping out the tanks could float the vessel in minutes. Moreover, by pumping the ballast tanks dry, the gunboat doubled her speed from a little over five miles per hour to eleven.

Many contemporaries and maritime historians have associated the *E. A. Stevens* with Civil War ironclads, such as the *Monitor* and *Galena*, with which it served in the Union Navy's James River Squadron. Some sources even referred to the diminutive warship as the "Hoboken Ironclad." However, *E. A. Stevens* did not share much in common with these warships. While *E. A. Stevens'* hull boasted all iron construction, her only armor consisted of a low-lying angled armor band or skirt surrounding the main deck. This band covered a wooden bulwark built of solid cedar, which rose eighteen inches above the deck and measured four-and-a-half feet in depth. The bulwark surrounded



With an open architecture, USRC E. A. Stevens/Naugatuck was a unique-looking warship. She joined the U.S. Naval squadron in Hampton Roads in April 1862. Her main weapon was a 100-pounder Parrott Rifle. (Harper's Weekly engraving)

the deck, keeping water off it and providing slight cover from enemy fire.

The *E. A. Stevens* also supported two deckhouses located amidships and on the after deck of the gunboat. Positioned forward of the smoke stack, the pilothouse served as the captain's station while underway. During the vessel's tour of duty on the James River, the crew attached boilerplate to the pilothouse as armor against musket fire and the ship's captain David Constable reported how musket balls hitting the armor sounded like hailstones raining down in a storm. The after deckhouse served as the galley and quarters for the three officers. It received protective iron plating like the pilothouse. The vessel's enlisted crew of twenty men slept below decks in a compartment located between the engine room and the forward ballast tank. Their quarters also served as the loading room for the main gun during combat operations.

The *E. A. Stevens* proved a useful platform for testing ordnance innovations as well as new naval designs. The gunboat carried three cannon, including two twelve-pound Dahlgren howitzers, one mounted on a pivot on each side. In addition, the Stevens received the first 100-pound rifled Parrott gun to roll off the production line. The diminutive vessel sported a unique muzzle-loading system in which the rifle's muzzle pivoted down to an opening in the vessel's forward deck, where the crew could load it below decks. With this system, the main gun could be loaded in twenty-five seconds without exposing any of the crew to enemy fire. The main gun's carriage also incorporated Edwin Stevens's patented India rubber gun suspension system, which

absorbed over fourteen inches of the gun's recoil movement.

The *E. A. Stevens*'s new technology also included an innovative propulsion system. Edwin retained *Naugatuck*'s original steam engines, but he replaced the single screw with the Stevens twin-screw propeller system. The Stevens family had pioneered the development of the twin-screw system since the beginning of the century and it only made sense to test that technology under combat conditions. With the twin screws, *E. A. Stevens* could revolve in a full circle within her own length in about two minutes. The gun carriage was fixed laterally, so the twin-screw arrangement allowed the captain to train the gun using the helm and the maneuverability of the screws. Moreover, with her top speed of over ten miles per hour, she was considered quite fast for a small vessel of the day.

Edwin Stevens had to find a Federal agency interested in procuring the new vessel, so he offered *E. A. Stevens* to the U.S. Navy free of charge. The Navy, however, declined his offer because it saw the vessel's technology as untested. Next, Stevens turned to the U.S. Revenue Cutter Service, which welcomed the opportunity to operate its own steam-powered gunboat. In mid-March of 1861, the Department of the Treasury ordered the gunboat to steam south from New York to Hampton Roads. It did so with a crew of over twenty men that included a boatswain, gunner, carpenter, steward, cook, two quartermasters, fourteen seamen, and a "servant." The crew also included some of Stevens's trusted associates, such as William W. Shippen, a manager with the Stevens's Hoboken Land and Improvement Company. Shippen

took command of the vessel, with Revenue Cutter Service lieutenants J. Wall Wilson and E.L. Morton serving under him. Stevens' engineer, Thomas Lingle, who installed the gunboat's new and improved machinery, took the job of chief engineer and remained in that position into 1863.

On April 9, 1862, Stevens reached Hampton Roads and the Union Navy's base of operations to join the North Atlantic Blockading Squadron's James River Squadron. On April 11, under the command of Captain Shippen, *E. A. Stevens* exchanged fire with CSS *Virginia* when the ironclad emerged from her anchorage near Craney Island. *Virginia*'s primary target, USS *Monitor*, declined to engage, so the skirmish proved inconclusive.

After the destruction of *Virginia* in May 1862, the Confederates retained only a few lightly armed gunboats to counter the superior forces of the U.S. Navy. In an effort to renew his Peninsula Campaign, General George McClellan requested a squadron to force her way up the James River and threaten Richmond from the water. To fulfill this request, the North Atlantic Blockading Squadron commander, Flag Officer Louis M. Goldsborough, assigned Commodore John Rodgers command of the James River Squadron, which included the U.S. Navy's wooden warships *Aroostook* and *Port Royal*, the ironclads *Monitor* and *Galena*, and the gunboat *E. A. Stevens*.

The Union warships experienced only minor resistance during their passage up the James River to reach the fortifications at Drewry's Bluff. At 7:45 a.m., on May 15, the battle opened when Rodgers' flagship *Galena* approached within 400 yards of the sunken obstructions.



E. A. Stevens (at lower right) participated with a U.S. Navy squadron at the Battle of Drewry's Bluff. Unfortunately for the experimental warship, a more basic piece of technology failed her during the battle. After the second shot, the ship's 100-pounder Parrott Rifle exploded. (NHHC image)

After *Galena* made contact with the Confederate batteries, USS *Monitor* made her own approach. The ironclad closed in on the fortifications at about 9:00 a.m. and began shelling the Confederate positions. However, John Ericsson had designed *Monitor* for naval combat rather than shore bombardment, so her cannon could not elevate sufficiently to hit the fort at the top of Drewry's Bluff.

With the confined width of the James River at Drewry's Bluff and *Galena* anchored near the fortifications, the squadron's vessels could only file in one at a time. With the withdrawal of *Monitor*, *E. A. Stevens* moved up to take her place. Stevens's technological innovations worked effectively to protect the ship. The gunboat sustained no heavy damage from the enemy's plunging fire, as it sat partly submerged, firing her main battery. Moreover, the gunboat's ordnance loading system successfully protected the crew from enemy sharpshooters and musket fire.

E. A. Stevens continued to pour rounds into the enemy fortifications; however, the gunboat suffered from the same problem as *Monitor*. Stevens designed the gunboat's main ordnance to battle Confederate warships in the shallow waters of the South's inland waterways and not for shore bombardment of enemy land fortifications. In any case, *E. A. Stevens*'s bombardment

came to an abrupt halt when her 100-pound Parrott rifle burst while firing on Confederate positions. The explosion blew off the gun's breech, damaging the pilothouse and the ship's deck. Despite losing her main gun, Stevens continued to fight with her twelve-pound howitzers with canister and solid shot against enemy shore emplacements.

By 11:00 a.m., *Galena* had suffered severe damage, exhausted her ammunition, and sustained thirteen dead and many wounded. After four hours of dueling with the Rebels, Rodgers ordered the fleet to retire downriver. *E. A. Stevens* had experienced relatively few casualties despite the hail of musket fire, enemy shelling, and her catastrophic ordnance failure. One of the ship's crew received a shot in the arm and another suffered a serious contusion. The ship's commanding officer, Lieutenant David Constable, sustained a head injury from shrapnel flying off the exploding Parrott gun, but remained at his station directing the broadside guns and commanding the vessel throughout the remainder of the battle.

By mid-July 1862, the gunboat had made her way to New York City to become guard ship for the harbor. Months of this monotonous duty likely caused great boredom among the crew, requiring the commanding officer to order them thrown

in irons on a regular basis. Occasionally, they received a harsher sentence, as in the case of Steward Joseph McCaster, who "was placed in irons and triced up twelve hours at the expiration of which time he was placed in solitary confinement in double irons for two days for insolence to comdg. officer." In July 1863, the gunboat defended the McDougal General Hospital at Fort Schuyler, playing a small role in the infamous New York City Draft Riots. On July 29, Secretary of the Treasury Salmon P. Chase ordered the gunboat's name to revert from *E. A. Stevens* back to *Naugatuck*. Of her forty-five years in her existence, the vessel held the name *E. A. Stevens* for little more than three years.

After the conclusion of hostilities, the Treasury Department assigned *Naugatuck* responsibility for patrolling North Carolina's inland sounds and a homeport in New Bern. *Naugatuck* served this duty from late 1865 until the summer of 1889, with periodic trips to New York, Norfolk, and Baltimore for maintenance and repairs.

The *E. A. Stevens* battle tested several unique naval technologies, including hidden loading systems, rubber recoil absorbers, multiple screws, high-speed water pumps, and ballast tanks. The use of ballast tanks in the *E. A. Stevens* proved one of the most successful applications of that technology up to that time. The twin-screw system proved very useful for speed, maneuverability, and aiming the main gun. Despite the success of the vessel's other innovations, the *E. A. Stevens*'s exploding gun marred an otherwise successful service history.

In an epilogue to this story, the results of *E. A. Stevens*'s combat record did little to bolster Federal spending on the larger "Stevens Battery." The iron warship languished on the shipways during the war while less expensive battle-proven monitors rolled off the ways at several shipyards along the East Coast. Edwin Stevens tried to interest the Federal government in underwriting the completion of the vessel, but the government refused to fund completion of the warship. In 1868, Edwin Stevens died rather suddenly while touring Europe. With his death, and his experimental gunboat relegated to the backwaters of North Carolina, interest in completing the "Stevens Battery" faded and the iron warship was finally scrapped in 1881. 🏠

A Viking Funeral



MINNESOTA CONDEMNED.
 Old Frigate to Be Sold to Highest Bidder—
 She Was Flagship When Merrimac
 Attacked the Union Fleet.
 (By "Coolidge.")
 Washington, July 13.—The steam frigate Minnesota, the barracks of the
 Boston Navy Yard, was taken off the list of naval vessels by the Sec-
 retary of the Navy today. It has been condemned, and will be sold to the
 highest bidder.
 This ends the official life of one of the great historical vessels in the
 navy.

OLD SHIP IS BURNED.
 Famous Old Frigate Minnesota Has
 Torch Applied to Her.
 EASTPORT, Me., Oct. 26.—The torch
 has been applied to the old warship
 Minnesota, brought here a few months
 ago to be broken up for the metal in
 her hull, and the woodwork has been
 almost entirely consumed. It is said
 that the old Tennessee will be brought
 here later to meet a similar fate.

Like many of the U.S. Navy's large wooden ships, *Minnesota* served out her last years as a floating barracks and recruitment depot. The Navy sold her off to a salvage company in 1901. The salvager took her to Eastport, Maine, and burned the hull to collect the ship's copper and iron. (Naval History and Heritage Command image)

In Our Next Issue...



On to Richmond!...Then Back to Norfolk:
 1862 Naval Operations On the James and York Rivers