

# ESSENTIAL CIVIL WAR CURRICULUM

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## Battle of the Ironclads

By **John V. Quarstein**

When the Confederates secured Gosport Navy Yard in Portsmouth, Virginia on April 21, 1861 they recognized that it provided them with the wherewithal to create an ironclad. Confederate Secretary of the Navy Stephen Russell Mallory realized that the South could not match the North's shipbuilding capacity, so he advised the Confederate Congress that "I regard the possession of an iron-armored ship as a matter of the first necessity. Such a vessel at this time could traverse the entire coast of the United States, prevent all blockades, and encounter, with a fair prospect of success, their entire navy."<sup>1</sup>

To achieve this goal, Mallory approved the conversion of the scuttled steam-screw frigate *Merrimack* into an ironclad. The frigate was raised, placed into dry dock and transformed into a warship the likes of which had never been seen. The *Merrimack* was cut down to her berth deck giving her a new length of 262 feet 9 inches. The hull was topped by a 170-foot-long casemate consisting of twenty-four inches of oak and pine backing, sheathed with two layers of iron plate, two inches thick by six inches wide. The casemate sides were sloped at a thirty-six-degree angle to deflect shot, but the acute slope only allowed seven feet of headroom and a beam of thirty feet. The Confederate ironclad was armed with the finest possible heavy cannons. She would carry a broadside battery of six IX-inch Dahlgrens and two 6.4-inch Brooke rifles. Two of the Dahlgrens smoothbores were hot-shot guns. A seven inch Brooke rifle rested on a pivot mount at each end of the casemate, where the structure was pierced by three gun ports. In addition to this armament, a 1,500-pound cast-iron ram was attached to the ironclad's bow.

The Confederates were in a rush to finish their warship; news of the construction of several Union ironclads meant that the South might lose its armored advantage if the vessel was not quickly put into action. The project encountered daily delays, particularly in iron production, but the reconfigured ship finally was launched on February 17, 1862, and commissioned the CSS *Virginia*. She appeared to be powerful; however, there were numerous defects, including the reuse of the previously condemned engines, a draft too deep (twenty-two feet) and a poorly mounted ram.

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<sup>1</sup> United States Navy Department, *Official Records of the Union and Confederate Navies in the War of the Rebellion* (Washington D.C.: Government Printing Office, 1894-1927), Series II, volume 2, p. 69 (hereafter cited as *O.R.N.*, II, 2, 69).

Flag Officer Franklin Buchanan was detailed as commander of the James River defenses with the Confederacy's new ironclad as his flagship. Buchanan, a forty-six-year veteran of the U.S. Navy and the U.S. Naval Academy's first superintendent, was a dynamic officer. "A typical product of the old-time quarter deck," Lieutenant John Randolph Eggleston, one of the Virginia's officers wrote of Buchanan. He was "as indomitably courageous as Nelson and as arbitrary."<sup>2</sup> Mallory expected great things of Buchanan and the *Virginia* and wrote the flag officer that "the *Virginia* is a novelty in naval construction, is untried and her power unknown....Her powers as a ram are regarded as formidable, and it is hoped that you will be able to test them. Like a bayonet charge of infantry, this mode of attack, while most distinctive, will commend itself to you in this present scarcity of ammunition." The navy secretary also suggested that the ironclad should make a dashing cruise on "the Potomac as far as Washington, its effect on the public mind would be important to our cause." Such a bold move could bring victory at a time when the Confederacy was reeling from defeats in Tennessee and the Carolina sounds. Mallory was convinced that "the opportunity and means for striking a blow for our Navy are now for the first time presented." The secretary concluded his letter by stating that "[a]ction—prompt and successful action—would be important for our cause."<sup>3</sup>

Mallory's instructions were not lost on Franklin Buchanan. He selected Newport News Point as his target, but his hopes for a joint army-navy attack were dashed by the unwillingness of Major General John Bankhead Magruder, commander of the Confederate Army of the Peninsula, to cooperate. Undaunted, Buchanan still intended to take his ironclad into action as quickly as was feasible. A gale forced him to call off attacks on March 6 and 7 as the *Virginia* needed calm waters in which to operate.

On March 8, the weather cleared, and Buchanan prepared the ironclad for action. He hoisted his flag officer's red pennant over the CSS *Virginia* and ordered the crew to cast off from the quay at Gosport Navy Yard. Workmen dashed off the ironclad without completing many minor details. The banks of the Elizabeth River thronged with thousands of cheering citizens. Surgeon Dinwiddie Phillips commented that "most of them, perhaps, attracted by our novel appearance, and descriptions of witnessing our movements through the water. Few, if any, entertained an exalted idea of our efficiency; many predicted a total failure."<sup>4</sup> The Confederate ironclad's trial run down the Elizabeth River proved that the ironclad was as unmanageable as a "water-logged log."<sup>5</sup> The warship was slow with a speed of five knots and ran so close to the river bottom with her twenty-two foot draft that a towline from the CSS *Beaufort* was needed to help the huge ironclad round a bend in the river. As the ship passed Craney Island, Flag Officer

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<sup>2</sup> John R. Eggleston, "Captain Eggleston's Narrative of the Battle of the *Merrimac*," *Southern Historical Society Papers* 40 (1916): 170.

<sup>3</sup> *O.R.N.*, I, 6, 776-7.

<sup>4</sup> Dinwiddie Brazier Phillips, "The Career of the Iron-Clad *Virginia*, (formerly the *Merrimac*), Confederate States Navy, March-May, 1862." Collection of the Virginia Historical Society. Richmond: Virginia Historical Society, 1887, 201.

<sup>5</sup> John Taylor Wood, "First Fight of the Ironclads; March 9, 1862." in *Battles and Leaders of the Civil War*. Robert Underwood Johnson and Clarence Clough Buel, eds., New York: Century Company, 1887, 1:696.

Franklin Buchanan informed the crew, “Sailors in a few minutes you will have the long awaited opportunity to show your devotion to our cause...The Confederacy expects every man to do his duty, beat to quarters.”<sup>6</sup>

The ironclad dropped her towline from the *Beaufort* and entered Hampton Roads at high tide. The entire Federal fleet went to battle stations with the shout “that thing is a-comin at last sir.”<sup>7</sup> The *Virginia* appeared like “the roof of a very big barn belching forth smoke as from a chimney on fire.”<sup>8</sup> It took the huge vessel over one hour to reach Newport News Point. Buchanan had decided that his first attack should be made against the two Union sailing warships stationed there, the fifty-two gun USS *Congress* and the twenty-four gun USS *Cumberland*. The *Cumberland* was his primary target, as Buchanan understood that she was armed with a seventy pounder rifle, the only weapon he thought capable of damaging his ironclad.

The ironclad and her consorts, CSS *Raleigh* and the CSS *Beaufort*, exchanged fire with the Union forces at Newport News Point. The *Beaufort* fired the first Confederate shot of the day. The first shot from the CSS *Virginia*'s forward seven inch Brooke rifle struck the *Cumberland*'s starboard rail, injuring several Marines. Then the Confederate vessel passed the *Congress*. The two warships traded salvos. Shot from the frigate bounced off the Confederate ironclad like “pebble-stones.”<sup>9</sup> As if by a miracle, no projectile entered into the wide-open ports. The *Virginia* replied and unleashed her broadside of four guns against the Union warship. Hot shot and shell ignited two fires on the hapless frigate and the *Congress* appeared critically damaged.

The *Virginia* did not stop to complete the destruction of the *Congress*, but continued on toward the *Cumberland* “like some devilish and superhuman monster, or the horrid creature of a nightmare.” The sloop kept up her fire against the oncoming ironclad, but her shot “struck and glanced off, having no more effect than peas from a pop-gun.”<sup>10</sup> The Confederate ship steamed over the anti-torpedo obstructions surrounding the wooden vessel and rammed the sloop of war in her starboard quarter. The *Cumberland* was mortally wounded; the ramming was only made worse by a simultaneous shot from the ironclad's bow rifle, which killed ten men. The Union warship immediately began to sink with the ironclad's ram trapped within the sloop's hull. As the weight of the sloop rested upon the ram, the armorclad's engines refused to reverse and the Confederate ironclad began to settle. The poorly mounted ram broke off and freed the ironclad. Ashton

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<sup>6</sup> William Norris, “*The Story of the Confederate States' Ship “Virginia” (Once Merrimac): Her Victory over the Monitor; Born March 7<sup>th</sup>, Died May 10<sup>th</sup>, 1862.* Baltimore, MD: John B. Piet, 1879, Reprint, *Southern Historical Society Papers* 41 (September 1916): 206.

<sup>7</sup> Henry Reaney, “How the Gun-Boat *Zouave* Sided the *Congress*.” *Battles and Leaders*, 1:714.

<sup>8</sup> *Ibid.*

<sup>9</sup> Thomas O. Selfridge, Jr., *Memoirs of Thomas O. Selfridge, Jr.: Rear Admiral U.S.N.* New York: G. .P. Putnam's Sons, 1924, 46.

<sup>10</sup> Henry Aston Ramsay, “Wonderful Career of the *Merrimac*.” *Confederate Veteran* (July 1907): 311.

Ramsay later noted, “Like a wasp we could sting but once leaving the sting in the wound.”<sup>11</sup>

The ironclad floated fifty yards apart from the *Cumberland* as the two ships continued to bombard each other. Acting Master’s Mate Charles O’Neil remembered that the “shot and shell from the *Merrimack* crashed through the wooden sides of the *Cumberland* as if they had been made of paper carrying huge splinters with them and dealing death and destruction.”<sup>12</sup> The sloop turned into a slaughterhouse and the sloop’s death toll was 121. The ironclad also received significant damage from her encounter with the union ship. The ironclad’s smokestack was riddled; the damaged funnel caused the gun deck to fill with smoke and the iron vessel’s speed was lessened. Three broadsides from the sloop shot away the starboard anchor, starboard cutter, guard howitzers, stanchions and iron railings. The wooden warship’s gunners aimed at the ironclad’s gun ports, hoping to send solid shot inside the casemate. Two gun muzzles were shot off.; one was broken so short that at each subsequent discharge its port was set on fire. Finally, the *Cumberland* lurched forward and began to go under as her acting commander Lieutenant George U. Morris shouted to the crew, “Give them a broadsides boys, as she goes.”<sup>13</sup>

The ironclad due to her deep draft and poor steering, was forced to steam up the James River to turn around. While this maneuver was being executed, Lieutenant John Taylor Wood struck the *Congress* with several shells from the seven inch stern Brooke rifle. The ironclad also destroyed two Union transports and captured another, all of which were anchored along a wharf. The warship then steamed to within two hundred yards of the stranded *Congress*. The frigate’s stern was quickly demolished and the main deck was “literally reeking with slaughter.”<sup>14</sup> The armed tug, USS *Zouave*, was struck by several shells from the ironclad. When a shell hit the *Zouave*’s rudderpost, the disabled vessel broke off action and fled the scene. Lieutenant Joseph B. Smith, acting commander of the *Congress*, was struck by a shell fragment, which tore off a portion of his head and shoulder. The ship’s command evolved onto the shoulders of Lieutenant Austin Pendergrast and he surrendered the ship.

Buchanan ordered two of his support vessels, the CSS *Raleigh* and CSS *Beaufort*, to remove the wounded, accept the ship’s surrender and then to complete her destruction. Brigadier General Joseph King Fenno Mansfield, commander of Camp Butler at Newport News Point, ordered his men to open fire on the Confederates and forced them to back away from the *Congress*. Buchanan ordered Lieutenant Robert Dabney Minor to row over to the frigate in the *Virginia*’s remaining cutter. A volley of musketry hit the boat and Minor was seriously wounded. The CSS *Teaser*, commanded by Lieutenant William

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<sup>11</sup> Ibid.

<sup>12</sup> Charles O’Neil, “Engagement between the *Cumberland* and *Merrimack*,” *U.S. Naval Institute Proceedings* 48 (June 1922): 893.

<sup>13</sup> Quoted in “*The Sinking of the “Cumberland” by the iron clad “Merrimac,” off Newport News, VA, March 8<sup>th</sup> 1862.* Currier & Ives lithograph. New York: Currier & Ives, c1862.

<sup>14</sup> Reaney, “Zouave Sided the Congress,” 168.

Webb, picked up the survivors in a bold dash. Buchanan, standing atop the *Virginia* and enraged by the Union actions under a flag of truce, shot at the Federal soldiers on the shore. They returned fire and he was badly wounded in the thigh. He was carried below and he ordered his executive officer, Catesby Roger Jones to “plug hot shot into her and don’t leave until she is afire.”<sup>15</sup> Jones assumed command of the *Virginia*. The *Congress* was soon burning from stem to stern and Jones steered his ironclad back into Hampton Roads.

As the *Virginia* destroyed the two warships at Newport News Point, other Union vessels attempted to come to their support. The USS *Roanoke*, USS *St. Lawrence* and USS *Minnesota* all ran aground and were stranded. While the *Roanoke* was pulled to safety by the tug USS *Mystic*, the other warships were shelled by the *Virginia* as she steamed toward Sewell’s Point. Darkness and a receding tide compelled Jones to moor his vessel; however, gunfire from the ironclad damaged both Union frigates. As the spars and ropes of the *Congress* “glittered against the dark sky in dazzling lines of fire,”<sup>16</sup> Jones vowed to destroy the Federal fleet the next day.

When daylight came on Sunday, 9 March 1862, the *Minnesota*, despite all efforts to float her, was still aground. There appeared nothing that the warship could do but to wait for the *Virginia*’s arrival. The frigate’s commander, Captain Gershom Jacques Henry Van Brunt, was prepared to destroy his ship rather than allow it to be captured by the Confederates.

The *Virginia* got underway from her Sewell’s Point mooring at about 6:00 a.m., accompanied by the *Patrick Henry*, *Jamestown*, and *Teaser*. Due to a heavy fog, the small fleet delayed entering Hampton Roads until nearly 8:00 a.m. Jones saw the *Minnesota* still stranded on the shoal as the *Virginia* closed within range. Two shells from the Confederate ironclad struck the Union frigate, and the Confederates believed that they would quickly destroy the wooden warship.; however, out from the side of the *Minnesota* came, accordingly to the chief engineer of the Confederate ironclad, Ashton Ramsay, “a barrel-head afloat with a cheese box on top of it...and boldly confronted us.”<sup>17</sup> It was the USS *Monitor*

The Union ironclad’s appearance in Hampton Roads the night before was a virtual miracle. While the *Monitor* was not designed to counter the threat of the Confederate ironclad, it was fortunate that the Union ironclad arrived in time to disrupt the *Virginia*’s destructive work.

She was a completely new concept of naval design, created by Swedish-American inventor John Ericsson. While the Confederate ship was a brilliant adaptation of materials

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<sup>15</sup> Norris, *Story of the Confederate States’ Ship “Virginia”*, 208.

<sup>16</sup> Raleigh E. Colston, “Watching the *Merrimac*”, *Battles and Leaders*, 1:714.

<sup>17</sup> Henry Ashton Ramsay, “The Most Famous of Sea Duels, The Story of the *Merrimac*’s Engagement with the *Monitor*, and the Events that Preceded and Followed the Fight, Told by a Survivor,” *Harper’s Weekly*, February 10, 1912: 12.

at hand, the Union vessel was an engineering marvel containing several patents obtained by Ericsson. The ironclad was 173 feet in length, weighed 776 tons, and had a beam of 41.5 feet. Her draft was eleven feet, with a freeboard of less than a foot, and she could make seven knots. The ironclad was virtually awash with the sea. All of the ship's machinery, magazine, and quarters were positioned below the waterline. The turret and pilothouse were the only features protruding from the deck. The *Monitor's* most impressive feature was her steam-powered, rotating, circular turret mounting two XI-inch Dahlgren smoothbores. The turret was constructed of eight layers of one-inch-thick, curved, rolled plates. The gun ports were equipped with iron shutters. The turret had an interior diameter of twenty feet and a height of nine feet. A pilothouse was the only other main feature above the deck. It was rectangular box of iron, standing three feet high and made of nine- by twelve-inch iron bars. A one-inch observation slit was included below the upper tier of iron bars.

Lieutenant John Lorimer Worden was selected as the *Monitor's* commander. Worden had served in the U. S. Navy since 1834 and had been a prisoner of the Confederates after conducting a secret mission to Fort Pickens in Pensacola Bay, Florida. Recently exchanged, Worden accepted the command of the experimental warship and commented, "After a hasty examination of her [I was] induced to believe that she may prove a success. At all events, I am quite willing to be an agent in testing her capabilities."<sup>18</sup> Not all of her crew was as sure of the ironclad, as Quartermaster Peter Truscott noted that "She was a little bit the strangest craft I had ever seen."<sup>19</sup> Seaman David R. Ellis made perhaps the most telling remark about the ship as she readied to leave New York, commenting, "She had not been pronounced seaworthy, and no one could safely judge of her fighting qualities."<sup>20</sup>

On the afternoon of March 6, 1862, the ship left New York under tow by the steam tug *Seth Low*. The *Monitor* encountered severe storms off the New Jersey coast and almost sank en route to Hampton Roads. Lieutenant Samuel Dana Greene, the ironclad's executive officer, later wrote about the stormy trip south, "I think I lived 10 good years."<sup>21</sup>

The Union ship opened fire at 8:45 a.m. and for the next four hours the two ironclads pounded each other mercilessly with shot and shell. The battle was fought mostly at a range of less than one hundred yards. Worden hoped that by firing his heavy shot, 168-pound spherical projectiles using fifteen pounds of power, from the ironclad's XI-inch Dahlgrens, such pounding would loosen or break the *Virginia's* iron plates. In turn, the Confederate warship was at a disadvantage. She had only explosive shells, hot

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<sup>18</sup> *O.R.N.*, I, 6, 516-7.

<sup>19</sup> Samuel Lewis, "Life on the *Monitor*: A Seaman's Story of the Fight with the *Merrimac*; Lively Experiences Inside the Famous 'Cheesebox on a Raft,'" in *Campfire Sketches and Battlefield Echoes of '61-'65*. William C. King and William P. Derby, eds., Springfield, MA: King, Richardson, 1883, 258.

<sup>20</sup> David Robert Ellis, *The Monitor of the Civil War*. Anneville, PA: published by author, 1902, 19.

<sup>21</sup> Samuel Dana Greene, "In the *Monitor's* Turret." in *Battles and Leaders*, 1:720.

shot and canister specifically to use against wooden warships. Thus, Jones's strategy was first to concentrate on the *Minnesota* and if necessary to try to ram or board the Union ironclad. The *Monitor's* small size and quickness frustrated the Confederates, who tried to fire at their opponent's gun ports; yet, discovered that the turret revolved too quickly. The Federals realized that their shot was having no damaging effect upon the Confederate ship as they were limited to using half powder charges and the shot continued to bounce off the sloped, iron sides of the *Virginia*.

There were several problems aboard the *Monitor* despite her technological advantages. The port stoppers proved to be almost too heavy to operate and only one gun could be fired at a time. Both ports were left open because it was the only way to enhance the gun crew's vision since the communication system between the pilothouse and turret failed to function. The turret's rotating system also malfunctioned due to water damage which caused the mechanism to rust. Therefore, the turret could not be stopped with any precision. Eventually, the guns were discharged 'on the fly' as the turret turned past the target.

After almost two hours of combat, Worden took his ship out of action to replenish ammunition in the turret. Jones took immediate advantage and steamed the *Virginia* toward the stranded frigate. The Confederate ironclad, leaking from the loss of her ram the day before, ran aground. The *Virginia*, unable to deflect her guns to defend herself, was pounded then for over an hour by the Union ship. Somehow, the old engines eventually responded to the need and the *Virginia* freed herself. Jones then tried to ram his opponent. The Union ironclad was hit with a glancing blow which caused no damage to the *Monitor*. The impact caused another leak in the Confederate vessel's bow. His opponent's evasive action enabled Jones to once again maneuver toward the *Minnesota*. Several shells were sent against the frigate, one of which struck the tug *Dragon*. The *Dragon's* boiler burst and the tug, which had been alongside the *Minnesota* to tow that vessel to safety once freed from the shoal, sank. Worden was able to steer his ship between the Confederate ironclad and the Union frigate. He now decided to ram his nemesis, seeking to strike the larger ironclad's propeller to disable her. The ironclad missed her target because of a malfunctioning steering system. As the Union ship passed the stern of the *Virginia*. Lieutenant John Taylor Wood fired the stern seven inch Brooke rifle at the pilothouse. The shell struck the observation slit just as Worden was peering out. The explosion created "a flash of light and a cloud of smoke which blinded Worden."<sup>22</sup> Worden's ship was steered off onto a shoal by Quartermaster Peter Williams who later received the Medal of Honor for his actions. Worden was taken to his cabin for treatment. The ironclad appeared out of action as the minutes ticked by while executive officer Samuel Dana Greene was summoned from the turret to Worden's cabin to assume command of the ironclad. Meanwhile, Jones began to move his ship toward the *Minnesota*; however, the pilots warned him that the tide was receding. Consequently, Jones headed his ship back into the Elizabeth River. Greene finally met with Worden and

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<sup>22</sup> William Frederick Keeler, *Aboard the USS Monitor, 1862: The Letters of Acting Paymaster William Frederick Keeler, U.S. Navy, to his wife Anna*. Robert W. Daly, ed., Annapolis, MD: United States Naval Institute Press, 1964, 38.

the ironclad's captain gave his executive officer orders to protect the *Minnesota*. When Greene took his place in the damaged pilothouse the *Virginia* was already steaming toward the Elizabeth River and Greene did not pursue the Confederate vessel.

Even though both sides claimed victory, the first battle between ironclad warships ended in a draw. Neither ship was seriously damaged during the engagement. The *Monitor* had indeed won a tactical victory, as the Union ironclad had stopped the Confederates from destroying the *Minnesota* and the rest of the Union wooden warships in Hampton Roads. The strategic victor was the *Virginia* because her mere existence enabled the Confederates to control Hampton Roads and the entrance to the James River, thereby defending the water approach to Norfolk and Richmond. The ironclad's presence forced Major General George Brinton McClellan to alter his Peninsula Campaign just as he was beginning to move his huge army to Fort Monroe. McClellan's delays on the Lower Peninsula would have serious implications on his campaign and greatly contributed to his eventual defeat.

The two ironclads would never fight again and neither would survive 1862. The Confederate vessel was scuttled by her own crew on May 11, 1862 when Norfolk was abandoned by the Confederates. The *Monitor* fought the *Virginia's* crew manning land batteries on May 15, 1862 at Drewry's Bluff. The Federal flotilla, including the ironclad USS *Galena*, was repulsed. After service supporting McClellan's army in the James River and a re-fit at the Washington Navy Yard, on Christmas Day 1862 the ironclad was detailed to Beaufort, North Carolina. The *Monitor* sank en route off Cape Hatteras in a heavy gale during the early morning of 31 December 1862.

One of history's greatest naval engagements, the 8-9 March 1862 Battle of Hampton Roads forever changed naval warfare. It was the death knell for wooden warships and ushered in a new era of naval construction and ordinance.

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