March 8, 1862

The same storm that nearly sank the Monitor on her trip south had kept the CSS Virginia in port as well. It was not until the morning of March 8, 1862 that the weather appeared acceptable for taking the Confederate ironclad out into Hampton Roads. With workmen still aboard, the commanding officer, Franklin Buchanan, ordered his crew to ready the ersatz vessel for a cruise. Most believed that this would be a shake-down (test) cruise, but Buchanan had confided in his officers that he intended to take the vessel directly into battle. As the crew cast off the mooring lines, the workmen, who had been installing the fore and aft gunport shutters leapt to the dock. The Virginia was underway. Those observing her departure kept eerily silent, recalled some of the crew years later. As the Virginia neared Craney Island, commander Franklin Buchanan reportedly said, “Sailors, in a few minutes you will have the long looked for opportunity of showing your devotion to our cause. Remember that you are about to strike for your country and your homes. The Confederacy expects every man to do his duty. Beat to quarters!” Then he reminded them, “The whole world is watching you today.”¹

Privately, Buchanan must have had mixed feelings. Like many others in this war he would soon be opening fire upon his own flesh and blood. His brother Thomas McKean Buchanan was the Paymaster on board the USS Congress.

¹ H. 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, 11-12. Unfortunately, many of the accounts of the battle were written several decades later, so the words of the men must be regarded as approximate at best, and examples of poetic license with the passage of time at worst.
As the *Virginia* steamed down the Elizabeth River, both banks were crowded with people. Many were just curious about the ship’s strange appearance. Some refused to believe in her, shouting, “Go on with your old metallic coffin!” Those with a richer sense of history realized that the day had finally come: that “here was to be tried the great experiment of ram and iron-clad in naval warfare.”

Saturday, March 8, 1862 was laundry day for the crews of the Union’s North Atlantic Blockading Squadron in Hampton Roads, Virginia. The rigging of the wooden vessels was festooned with blue and white clothing, drying in the late winter sun. Shortly after noon, the quartermaster of the USS *Congress*, which was anchored off Newport News Point, saw something strange through his telescope. He turned to the ship’s surgeon and said, “I wish you would take the glass and have a look over there, Sir. I believe that thing is a’comin’ down at last.”

That “thing” was the CSS *Virginia*. The Confederates had been converting the burnt-out hull of the steam screw frigate *Merrimack* into a casemated ironclad ram at Gosport Navy Yard on the Elizabeth River. It had taken nine months for the conversion, and Flag Officer Franklin Buchanan, was impatient to strike at the blockading fleet. March 8, 1862 would be the *Virginia*’s sea trial, as well as her trial by fire.

The men of the North Atlantic Blockading Squadron, who had grown weary of waiting for the *Virginia* to come out, now scrambled to prepare for battle. In the panic of the moment,

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and with the tide at ebb, several vessels ran aground, including the USS Congress and the USS Minnesota.

The USS Cumberland was Buchanan’s first target. With his guns firing at the wooden ship, Buchanan rammed the Cumberland on her starboard side. The hole below her waterline was large, and the ship immediately began to sink, nearly taking the Virginia with her. Scores of Union sailors from the Cumberland died at their guns, or went down with their ship; guns still firing and flags still defiantly flying.

The Virginia broke free, and steamed slowly into the James River. The men on the stranded Congress began to cheer, thinking they had been spared the same horrific fate. That cheer was cut short, however, when they saw that the Virginia had made her ponderous turn.  

The Virginia’s withering firepower tore into the USS Congress for nearly two hours. With most of the crew dead or wounded, including the commanding officer, the next in command, Lieutenant Commander Austin Pendergrast surrendered the Congress. Enraged at Union shore batteries which continued to fire upon the white flag, Buchanan ordered the Congress to be set afire, and then began personally firing back at the shore with a rifle. He quickly became a target on the exposed top deck of the Virginia. Wounded, he turned command over to his Executive Officer, Lieutenant Catesby ap Roger Jones, who returned the Virginia to her moorings that evening. Falling darkness and a receding tide had saved the steam frigate USS Minnesota from the same fate as the Congress and Cumberland.

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4 Shippen, 282.
The mood in Hampton Roads was one of disbelief and for some, resignation. Major-General Wool of the US Army kept Washington informed of events via the telegraph, the lines of which had been repaired late in the day. The news that he sent to Secretary of War Stanton at 8:30 p.m. from Fortress Monroe was bleak:

The *Merrimack* came down from Norfolk to-day, and about 2 o’clock attacked the *Cumberland* and *Congress*. She sunk the *Cumberland*, and the *Congress* surrendered. The *Minnesota* is aground and attacked by the *Jamestown*, *Yorktown* and *Merrimack*. The *St. Lawrence* just arrived and going to assist. The *Minnesota* is aground. Probably both will be taken. That is the opinion of Captain Marston and his officers. The *Roanoke* is under our guns.\

Wool continued ominously, “It is thought the *Merrimack*, *Jamestown*, and *Yorktown* will pass the fort to-night.” Secretary Stanton took this news to heart, reportedly peering out the window of the White House to see if the Confederate ironclad and her consorts had already arrived on the Potomac, stating in an alarmist fashion that it was "not unlikely we shall have a shell or cannonball from one of her guns in the White House before we leave this room."\

Had the men of the *Monitor* not been aware of the impending completion of the reconfigured *Merrimack*, the scene that greeted them in Hampton Roads would have been something nearly inconceivable to them – more akin to a chapter out of a fantastical novel than a safely blockaded harbor. Even before the incredible destruction was visible to them, the officers and crew heard the distant sounds of booming guns as the *Monitor* approached the mouth of the Chesapeake Bay at 3 p.m.\(^7\) Nearing Fortress Monroe, Paymaster William Keeler recalled, “As

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\(^5\) ORN, Series I, Volume 7, 4 – 5.

\(^6\) Gideon Welles, in *The Annals of the War*, 24-5.

\(^7\) Log of the USS *Monitor*, March 8, 1862, 13.
we neared the harbor the firing slackened & only an occasional gun lit up the darkness.” Yet the horror of the day’s events had sent civilians into a panic and Keeler noted that as the Monitor drew closer to the scene, “vessels were leaving like a covey of frightened quails & their lights danced over the water in all directions.”

At 7 p.m., a local pilot sent to bring the ironclad into the harbor confirmed what the men already suspected – the Merrimack had come out and had had her way with the Union fleet. The news seemed to slow time instantly for the crew. William Keeler recalled that the Monitor “crept slowly on & the monotonous clank, clank, of the engine betokened no increase of its speed” while the “moments were hours.” Yet, within the hour the Monitor came to anchor off Fortress Monroe whereupon Lieutenant John Worden reported to Commander Marston on board the Roanoke. Despite having received orders to send the Union ironclad immediately to Washington for the defense of the Capitol, Marston determined that the best way for the Monitor to protect Washington was to engage with the Merrimack in Hampton Roads. Marston ordered Worden to render assistance to the grounded Minnesota, still trapped on Hampton Flats. Worden immediately sent a message to Secretary Welles, stating that “I arrived at this anchorage at 9 o’clock this evening, and am ordered to proceed immediately to the assistance of the Minnesota, aground near Newport News.”

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8 Keeler, March 9 1862 letter to Anna, in Aboard the USS Monitor, 31.
9 Log of USS Monitor, March 8, 1862, 13
10 Keeler, March 9, 1862 letter to Anna in Aboard the USS Monitor, 31.
11 Log of USS Monitor, March 8, 1862, 13.
12 ORN, Series 1, Volume 7, 5.
Therein lay a problem. The *Monitor* would need a pilot to guide her to the *Minnesota* through the difficult waters of Hampton Roads. Despite only drawing eleven feet, the *Monitor* was still at risk of running aground. Yet there was no pilot to be found willing to guide the *Monitor* to the *Minnesota*, and remain with the ironclad throughout whatever action might come the following day.\(^\text{13}\) Acting Volunteer Lieutenant N. Goodwin of the US Bark *Amanda* detailed his own Acting Master, Samuel Howard, to the *Monitor*.\(^\text{14}\) With a skilled and willing pilot on board, Worden quickly had the *Monitor* under weigh and reached the side of the *Minnesota* by 10 pm.\(^\text{15}\)

News of the *Monitor*’s arrival quickly spread among Union forces. Assistant Adjutant General W. D. Whipple telegrammed General Wool that “[it] has infused new life into the men” on shore.\(^\text{16}\) The men on the *Minnesota* were perhaps a bit more skeptical, and Lieutenant Samuel Dana Greene, who was sent on board the *Minnesota* to inquire of Captain Van Brunt what manner of assistance the *Monitor* might render to the stranded vessel recalled, “An atmosphere of gloom pervaded the fleet, and the pygmy aspect of the new-comer did not inspire confidence among those who had witnessed the destruction of the day before.”\(^\text{17}\) Nevertheless, Captain Van Brunt of the *Minnesota* wrote in his official report dated March 10, 1862, that “all on board felt

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\(^\text{13}\) Pilots were generally civilians and thus could refuse the assignment. It was later reported in the *Evening Press* of March 18, 1862 that ‘After the *Monitor* arrived twenty Baltimore pilots refused to take her to Newport News, excusing themselves because they did not know the channel when, at any other time, they would have jumped at the chance.’ Quoted in ORN, Series 1, Volume 7, 31.

\(^\text{14}\) ORN, Series 1, Volume 7, 31.

\(^\text{15}\) *Log of the USS Monitor*, March 8, 1862, 13.

\(^\text{16}\) ORN, Series 1, Volume 7, 5.

\(^\text{17}\) Samuel Dana Greene, in *Battles and Leaders*, Volume 1, 722.
that we had a friend that would stand by us in our hour of trial.”18 The real question on all minds, however, was whether the Monitor’s presence would make any difference against the seemingly unstoppable might of the Confederate monster.

The burning Congress provided an eerie backdrop to the fevered activities in Hampton Roads, along with the “considerable noise” floating across the water from Confederate celebrations at Sewell’s Point.19 Observers on the French vessel Gassendi reported that, for the Union fleet, “everything seemed desperate on the evening of the 8th…everything was in confusion at Fort Monroe….,”20 Most desperate of all was the Minnesota’s situation. Men from the Bark Amanda had commandeered the America, whose captain and crew had refused to render assistance, and taken the steam tug to the Minnesota where from 11 pm to 4 am they attempted, unsuccessfully, to pull the frigate to safety. Despite the fact that “seven or eight guns had been thrown overboard and some others spiked [on the Minnesota],” more ammunition was brought on board for the pending engagement. Personal possessions such as bags and hammocks, were placed on the Whitehall in the event that the Minnesota had to be abandoned and scuttled. Making the situation seem even more desperate, the Minnesota remained under fire until after midnight; however, this fire did not come from the enemy, but from the Congress which lay broadside to the Minnesota. Exploding munitions on the doomed vessel occasionally sent shot flying as though the unseen hand of an enemy was still firing. “By chance,” recalled Joseph

18 ORN, Series 1, Volume 7, 11.
20 ORN, Series 1, Volume 7, 71.
McDonald, who was stationed on the tug Dragon, which lay next to the Minnesota, “we escaped injury.” 21

March 9, 1862

Around 12:40 a.m., the flames of the Congress reached the ship’s powder magazine and the whole of Hampton Roads was treated to a dreadful fireworks display. William Keeler recalled that “it was a scene of the most terrible magnificence. She was wrapped in one sheet of flame, when suddenly a volcano seemed to open instantaneously, almost beneath our feet & a vast column of flame & fire shot forth till it seemed to pierce the skies. Pieces of burning timbers, exploding shells, huge fragments of the wreck, grenades & rockets filled the air & fell sparkling and hissing in all directions.” 22 Despite being over two miles from the dying vessel, the explosion was so intense it “seemed almost to lift us out of the water,” Keeler wrote. Crewman David Ellis marveled at the brilliant colors, “not unlike the colors of the rainbow.” 23 The explosion was felt for miles around.

Having barely survived the first test of the Monitor’s seakeeping capabilities, the men were eager to have a chance to test out her fighting prowess and with the heightened senses that come with adrenalin and lack of sleep, the men prepared their untried vessel for the battle that they were certain would come in the morning. David Ellis summarized years later what he believed most of the men were thinking in those overnight hours: “We were about to enter a

22 Keeler, March 6-9 letter to Anna, in Abord the USS Monitor, 40.
23 David Ellis, unpublished ms, 25.
crisis; a life and death grapple, with a huge and victorious antagonist, possessing extraordinary
powers of aggression.”

Though the men had not yet seen this antagonist in person, they had seen what she could do. The worry was compounded by what the men had experienced in their sea trials and their trip south. “Would she stand the test?” they wondered. “What if she behaved as badly in battle as she had done in the storm?”

At 4 a.m. all hands were roused. Those who had not been standing watch had attempted to rest, “laying down where we could get a chance.” The men readied their vessel for battle, first covering the deadlights with their iron covers, then removing the blower pipes and smoke stacks. The Monitor would have as low a profile in the water as possible.

Upon first light on March 9, the men of the Monitor got their first close-up look at the Minnesota, whose ravaged sides towered over the tiny ironclad. The men of the Minnesota also got their first real look at the Monitor. Desperation mounted on board the frigate, and “the men were clambering down into the smaller boats – the guns were being thrown overboard & everything seemed in confusion.” Bags and hammocks, barrels and provisions went over the side of the Minnesota, “some of which went into the boats & some into the water, which was covered with barrels of rice, whiskey, flour, beans, sugar, which were thrown overboard to lighten the ship.”

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25 Ibid.
26 Driscoll in Berent, 24.
27 Keeler, March 6-9 letter to Anna, in Aboard the USS Monitor, 33.
28 Ibid.
29 Keeler, March 6-9 letter to Anna, in Aboard the USS Monitor, 32.
Just after dawn on March 9, the men of the *Virginia* tucked into a hearty breakfast made all the more festive by two jiggers of whiskey for each man.\(^{30}\) In contrast, the *Monitor*’s exhausted crew sat together on the berth deck eating hardtack and canned roast beef, washing it down with coffee. Crewman Robert Driscoll recalled that:

Capt. Worden came down from the turett [sic]. He addressed the crew of 38 men all told besides the officers. He reminded us that we had all volunteered[sic] to go with him that now having seen what the *Merrimac* had done and from all appearances was now capeable [sic] of doing and that the fate of the *Cumberland* may soon be ours that if any one regretted the step he had taken he would put him on board the Roanoke.\(^{31}\)

Despite their fatigue, the crew leapt to their feet and gave Worden three cheers. Not a single man took Worden’s offer.\(^{32}\)

As the morning fog lifted and the dark bulk of the *Virginia* appeared to be moving towards the *Minnesota*, Lieutenant Worden of the *Monitor* inquired of Captain Van Brunt what his intentions were. Van Brunt replied, “If I cannot lighten my ship off I shall destroy her.” Worden assured Van Brunt that he and the *Monitor* would “stand by you to the last if I can help you.” Van Brunt curtly replied, “No Sir, you cannot help me.”\(^{33}\) The exact words the men of the *Minnesota* called out to the “little pigmy” *Monitor* are unrecorded, but William Keeler wrote that

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\(^{32}\) Ibid.

\(^{33}\) Keeler, March 6-9 letter to Anna, in *Aboard the USS Monitor*, 33.
“we slowly steamed out of the shadow of our towering friend no ways daunted by her rather ungracious replies.”

Intense fog early on delayed the *Merrimack’s* assault upon the stranded *Minnesota* so it was not until 8:00 a.m. that the men on the *Merrimack* could make out the ravaged hull of the *Minnesota*. They also saw what appeared to be “a shingle floating in the water, with a gigantic cheesebox rising from its center” sitting alongside the frigate. The *Merrimack* fired the first shot – a warning of sorts – through the *Minnesota*’s rigging shortly before 8:30. The *Minnesota* returned fire, as did the cheesebox. Confederates who had been following the Northern newspapers knew then that the cheesebox was the anticipated “Ericsson’s Battery.” Observers on shore, such as Sallie Brock Putnam, recalled that the *Monitor* was “of midnight hue, which, like a thing of darkness, moved about with spirit-like rapidity.”

Lt. Worden watched the approaching battle from the deck of the *Monitor*. Logue and Keeler, who, as Surgeon and Paymaster respectively were considered “idlers” who stood no watch, were able to climb atop the turret to survey the scene. A second shot from the *Virginia* “howled over our heads & crashed into the side of the *Minnesota,*” recalled Keeler. Worden, ascending the turret to return to his pilothouse found the two men – neither of whom had seen battle – and sternly warned them: “Gentlemen, that is the *Merrimac*, you had better go below.”

Not waiting for a second warning from their soft-spoken commander, the two quickly complied,

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34 Keeler, March 6-9 letter to Anna, in *Aboard the USS Monitor*, 33.


36 Keeler, March 6-9 letter to Anna, in *Aboard the USS Monitor*, 34.
with Worden following after. The iron hatch cover was put in place, effectively sealing the men inside their vessel.

What the men remembered most about the moments before the battle was the silence. The morning was serene. “Not a ripple could be detected or a sound heard….everything seemed so still, so peaceable, so serene, as if soothed and tranquilized and beautiful by a special benediction from heaven,” recalled David Ellis. 37“Every one [sic] was at his post, fixed like a statue,” Paymaster William Keeler recalled of the morning of March 9, 1862. “The most profound silence reigned” on board the USS Monitor, and “if there had been a coward heart there its throb would have been audible, so intense was the stillness.”38

Worden took his place in the pilothouse, along with pilot Samuel Howard and quartermaster Peter Williams, who steered the vessel throughout the battle. In the turret, Executive officer Samuel Dana Greene assembled his gun crews – eight men per gun. Bos’un’s mate John Stocking and seaman Thomas Lochrane served as gun captains. Acting Master Louis Napoleon Stodder assisted Greene while Alban Stimers, who was on board as an observer, personally worked the turret gear. Acting Master John J.N. Webber commanded the powder division on the berth deck with gunner’s mate Joseph Crown. Firemen John Driscoll and George Geer were positioned at the foot of the turret ladder where they passed up shot to the gun crews above.39 In the engine room, Chief Engineer Isaac Newton commanded the working of the engine, along with engineers Albert Campbell and Robinson Hands.

37 Ellis, unpublished ms. 26-27.
38 Keeler, March 6-9 letter to Anna, in Aboard the USS Monitor, 33.
The nagging questions about the vessel’s capabilities intensified, and with good reason: the turret mechanism was already rusty from the seawater that had poured in during the voyage, the speaking tube between pilothouse and turret was completely disabled early in the action, the men had not been drilled at the guns and thus “were not prepared to act in concert.” To make matters even more precarious in the face of the Virginia’s 10 powerful guns, the 19 men inside the turret knew that because of the peculiar installation of the gunport shutters, only one gun could be run out at a time.40

To the astonishment of Captain Van Brunt on the Minnesota, the Monitor moved directly towards the Merrimack, placing herself between the ironclad and her prey.41 By putting his vessel in this position, Worden was risking being hit by both combatants as both were firing ricochet shots.42 The men in the turret, as well as below, waited in suspense in the dim light of the interior for the first shot to strike the Monitor. The “infernal howl…of the shells as they flew over our vessel was all that broke the silence & made it seem still more terrible,” recalled Keeler. As the Monitor came alongside the hulking iron casemate, Greene in the turret asked permission to fire. Keeler relayed the request and returned with the reply “Tell Mr. Green [sic] not to fire till I give the word, to be cool & deliberate, to take sure aim & not waste a shot.”43 Within yards of the Merrimack, Worden called all stop to the engines and sent the command to Greene to “Commence firing!”44 Greene then “triced up the port, ran out the gun, and, taking deliberate

40 Keeler, March 6-9 letter to Anna, in Aboard the USS Monitor, 40.; Greene, “In the Monitor Turret,” Battles and Leaders, vol. 1, 724.


42 This was akin to skipping stones across water – but gave vessels line-of-sight firing capabilities with increased accuracy.

43 Keeler to Anna, March 13 letter, 34.

44 Greene, In the Monitor’s Turret, Battles and Leaders, Vol. 1,723.
aim, pulled the lockstring.” The eerie silence within the *Monitor* was thus finally broken with the report of her first XI-inch Dahlgren, which jarred the crew considerably, but nonetheless “was music to us all.”

The *Monitor* was now being tested under enemy fire, just as the contract had specified. The officers and crew of the *Monitor* were forced to improvise given their difficult interior layout and the broken speaking tube. Paymaster Keeler and Captain’s Clerk Daniel Toffey, both landsmen, were tasked with relaying communications between the pilothouse and the turret, a 150-foot round trip each time. This was a risk, as their inexact understanding of maritime order or custom could potentially result in a devastating miscommunication. But there was no one else to spare for this duty as each man on the crew had a specific task and the disabling of the speaking tube had not been anticipated.

A “rattling broadside” which could have easily come from the *Minnesota* as the *Merrimack* soon slammed into the turret. The gunners quickly realized that their gun platform was unharmed. They showed more confidence now that they knew “the shots did not penetrate; the tower was intact and it continued to revolve.” Engineer Campbell told his wife triumphantly that “we were hit twice from the *Minnesota*…but it don’t make much difference who fires at us.” Ericsson’s inclusion on the interior of the turret of the thin metal mantelets insured that the nuts, bolts and rivets holding the eight layers of iron plate together did not turn into more “friendly fire” within the confines of the 21-foot cylinder.

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46 Keeler letter to Anna March 9 – 13, in *Aboard the USS Monitor*, 35.

47 There seems to be no consensus on this, only that the *Monitor* was hit by friendly fire throughout the battle.

48 Letter from Albert Campbell to wife Clara, March 10, 1862 in *Perspectives on the Civil War*, The Mariners’ Museum, Newport News, VA publication date unknown, 23.
In fact, the turret proved difficult to stop revolving once in motion. Though Stimers attempted to start and stop the turret on Greene’s command, the level of accuracy in aiming that was desperately required could not be achieved with the “novel machinery” which had never been tried in battle. The conventions applied to traditional broadside tactics soon went by the wayside as well. Though the men had carefully marked the stationary portion of the deck beneath the turret with chalk marks to indicate starboard and port bearings, and bow and stern, the marks were soon obliterated by both the movement of battle and the sweat which fell from the gunners “like rain.” Worden, who was stationary in the pilothouse continued to give commands in the traditional way. When relayed Greene’s query “How does the *Merrimac* bear?” Worden’s reply of “on the starboard beam” was of little use.

Eventually, Greene, Stimers and the gun crews settled on a method of dealing with their perplexing “revolving drum.” They let it continue to revolve, firing “on the fly” when the enemy target came in sight, then stopping it with the gunports turned away from the enemy for reloading. At times, Stimers let the turret continue to turn. At two and a quarter rotations per minute, there was no danger of dizziness. For observers on shore, at least, the turret was an absolute marvel to watch, and its movements belied the confusion and frustration within. Confederate signal Corps officer William Norris recalled as he watched the battle that “during all this time, the *Monitor* is whirling around and about like a top, and by the easy working of her turret, and her precise and rapid movement elicits the wonder and admiration of all.”

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49 Keeler letter to Anna March 9 – 13, in *Aboard the USS Monitor*, 35. The temperature within the turret was measured at 150 degrees during the Battle of Drewry’s Bluff in May.

50 Greene, “In the *Monitor’s* Turret,” *Battles and Leaders*, vol. 1, 725

Though the men may have admired the machinery, the rotation of the turret was frustrating to the crew of the *Merrimack* as well. This was an entirely new kind of warfare. Lieutenant John R. Eggleston of the *Merrimack* recalled that “We never got sight of her guns except when they were about to fire into us. Then the turret slowly turned, presenting to us its solid side, and enabled the gunners to load without danger.” Thus the *Monitor*’s gunports became the particular target which the *Merrimack*’s gun crew focused upon, as that seemed to be the most vulnerable point upon the armored drum, though at the time, the *Merrimack*’s gunners did not realize *how* vulnerable. Because of the limited space within the *Monitor* herself, the crew was small. So small, that had a shot entered the turret, this “would have ended the fight, as there was no relief gun’s crew on board.” Dents seen in the photographs taken by James Gibson in July of 1862, and indeed upon the actual turret itself, show that most of the *Merrimack*’s fire was trained upon that area.

But the first shots fired deliberately at the turret were grapeshot rather than solid shot or exploding shell. Despite being the object of enemy fire, the men within the turret wanted to see what was happening. Though ordered not to, one of the gunners simply could not help himself and stuck his head out of the gunport for a view of the Confederate ship. Unharmed, he drew his head back in and with a broad grin reported that “the d----d fools are firing canister at us.” In fact, there was very little solid shot on board the *Merrimack* as she had no need for it against the wooden walls of the Union fleet at Hampton Roads. Nor did she have the armor-piercing bolts

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54 Keeler letter to Anna March 9-13, in *Aboard the USS Monitor*, 35.
designed for the Brooke rifles on board. These bolts were not yet ready, nor was it thought she
would need them.

Seeking to find any sort of vulnerability upon the *Monitor*, several of the crewmen on
board the *Merrimack* took up rifles, and were ordered by Lieutenant Hunter Davidson to "take
one of those guns and shoot the first man that you see on board of that Ship." Gunners Richard
Curtis and Benjamin Sheriff took “positions at the bow port,” Curtis on the starboard side and
Sheriff on the port side, “both on our knees, but not in prayer.” Having come directly alongside
the *Monitor*, Curtis peered right into one of the gunports, looking for a target. Sheriff
frantically called out to Curtis “look out Curtis, look out Curtis,” which Curtis “was doing with
all my might.” But “while looking for that man I saw one of her guns coming slowly out of her
ports and looking me squarely in the face, Sheriff and myself thought it was time to move, which
we did quickly. Saw no man, fired no gun.”

After a point in the battle, many of the gun crews on the *Virginia* stopped firing their guns
altogether. Taking a quick turn through the gun deck, Lieutenant Jones found Lieutenant
Eggleston’s division at ease. When Jones asked, "[W]hy are you not firing, Mr. Eggleston?"
Eggleston recalled that he responded, "Why, our powder is very precious…and after two hours
incessant firing I find that I can do her just about as much damage, by fashing [snapping] my
thumb at her every two minutes and a half."

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55 Note – the forward pivot gun of the *Merrimack* was never moved out of its central position. Had the pivot been
turned to where Curtis was kneeling, the battle would have had a very different outcome.

56 Memoir of Richard Curtis as quoted in *Perspectives on the Civil War*, The Mariners’ Museum, Newport News, VA
publication date unknown, 19.

57 Norris, William, *The Story of the Confederate States' Ship “Virginia” (Once Merrimac)*, (Baltimore, John B. Piet,
Printer, 1879), 9.
After about two hours of battle, it became necessary to replenish the ammunition in the turret. This necessitated having the turret hatches aligned with the deck hatches below. Worden moved his ship away from the *Merrimack* to accomplish this task. He also had an intense need to know how well his vessel had weathered the battle so far. To the surprise of his officers and crew, Worden appeared in the turret, climbed out and descended to the weatherdeck below. Alarmed by this bold move, and worried for Worden’s safety, a crewman called out, “Why Captain, what’s the trouble?” Worden replied, “I can’t see well enough from the pilot house….I will go back, but I wanted to get a moment to take in the whole situation.” He quickly returned to the safety of the turret, however. Completing the rearming of the turret, Worden swung the *Monitor* back into battle.

When the *Monitor* withdrew, Jones seized the moment to bear down upon the *Minnesota*. Jones apparently had not conferred with his pilot, however, and the move caused the *Merrimack* to run hard onto the Middle Ground shoal. Upon returning to battle, Worden brought his vessel near to the *Merrimack* and began to fire relentlessly into her, attempting to find a chink in her armor. Had Worden known precisely the construction of the *Merrimack*’s armor, or had he been privy to the amount of coal burnt the day before, he might have been successful. The *Merrimack*’s load had been so lightened from the day before that a shot “between wind and water” would have taken her down quickly.  

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58 David Ellis, unpublished ms, 29.

59 Ibid.
...had to take all chances. We lashed down the safety valves, heaped quick-burning combustibles into the already raging fires, and brought the boilers to a pressure that would have been unsafe under ordinary circumstances. The propeller churned the mud and water furiously, but the ship did not stir. We piled on oiled cotton waste, splints of wood, anything that would burn faster than coal. It seemed impossible the boilers could long stand the pressure we were crowding upon them. Just as we were beginning to despair there was a perceptible movement, and the *Merrimac* slowly dragged herself off the shoal by main strength. We were saved.\(^{60}\)

Finally safe, and assessing the situation, Jones realized that while the *Monitor*’s armor made her invulnerable to shot, her “sub-aquatic” nature could potentially be her undoing. His approach was twofold. First, he attempted to ram the vessel, reasoning that she might be vulnerable below the waterline. Jones was not aware that the ram had gone down with the *Cumberland* the day before. Nonetheless, he prepared the *Merrimack* for ramming. This was no easy task, however, as it took nearly half an hour just to maneuver the vessel into ramming position and required over a mile of sea room to build up enough momentum to make the collision deadly. On board the *Monitor* the men realized what Jones was planning and were worried. Like the men on the *Merrimack*, they knew how vulnerable their own lower hull was. Though iron, the hull was merely ½ inch thick and the men had seen the results of the *Merrimack*’s ram upon the *Cumberland*;– her flags still defiantly flying as she rested on the bottom of Hampton Roads. Not knowing how far the presumed ram on the *Virginia* was, they braced for the impact. But the *Monitor* was a nimble craft, and was able to veer away, receiving only a glancing blow, the results of which can be seen in James Gibson’s photos, which were taken in July of 1862.
Thus far in the battle, cannon fire had not worked, small arms had not worked, and ramming had not worked against the Monitor. But Jones had another plan. Accordingly, he called for volunteers to board the Monitor. Their weapons would be peacoats and grenades. The coats would be used to “blind” the pilothouse. As there was no access to the outer deck (except via the top of the turret), it would be nearly impossible for a Monitor crewman to remove the coat. Grenades tossed down the funnels or into the turret would wreak havoc within. As the Monitor drew near the Merrimack yet again, the volunteers stood ready to leap aboard.

Realizing this – or perhaps hearing the call of “boarders away!” – Worden ordered the two Dahlgrens double shot with canister, but was able to quickly veer away, thus thwarting the plan.

The gunners on the Merrimack took the opportunity as the Monitor was turning, to continue shelling the Minnesota. The tug Dragon which was stationed alongside the Minnesota was ordered to cast off as they were interfering with the Minnesota’s return fire from the lower tier of her guns. Just as the Dragon pulled away a shell from the Merrimack hit the boiler on the tug, wounding three men severely.

The Monitor had completed her turn and made for the Merrimack’s fantail, attempting her own ramming maneuver when the Merrimack’s rifled stern gun fired directly into the Monitor’s pilothouse at a range of ten yards. The blast tore open the structure, cracking one of the huge iron “logs” and lifting the top. Lieutenant Worden, though protected somewhat by the heavy iron logs, took the full force of the explosion in the face. Though stunned and temporarily blinded, Worden gave the order to “sheer off” with the helm to starboard. Paymaster Keeler and Surgeon Logue helped Worden from the pilothouse and Keeler ran to relay the news to

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61 Greene, “In the Monitor’s Turret,” Battles and Leaders, Vol. 1, 726.
Greene, who left the turret to assess the situation. Still standing at the foot of the pilothouse ladder, Worden told his officers, “Gentlemen I leave it with you, do what you think best. I cannot see, but do not mind me. Save the Minnesota if you can.” He turned command of the Monitor over to Greene and was led to his stateroom where he was attended upon by Surgeon Logue. The officers conferred and determined to return to battle, despite their wounded leader and damaged pilothouse. However, because the Monitor had veered off into shoal water while the men assessed the damage, the distance between the two ironclads was now over a mile. To Greene, it appeared obvious that the Merrimack was in retreat. Keeler wrote that “she seemed inclined to haul off & after a few more guns on each side, Mr. Greene gave the order to stop firing as she was out of range & hauling off.” Anxiety over their wounded leader, combined with Worden’s continued concern over the safety of the Minnesota, caused Greene to abandon the chase and return to the side of the Minnesota – to both protect it, and to evacuate Worden from the Monitor so that he could receive proper treatment for his wounds.

Catesby Jones on the Virginia, seeing the Monitor out of action and heeding the warnings of his pilot that the tide was receding, made a course for Gosport in order to repair the damage done to his vessel. Richard Curtis recalled that as they headed back to Portsmouth he “looked

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62 Keeler letter to Anna March 9-13, in Aboard the USS Monitor, 38.

63 Worden “frequently asked from his bed of pain of the progress of affairs, and when told that the Minnesota was saved, he said ‘Then I can die happy.’” Greene, “In the Monitor’s Turret,” Battles and Leaders, Vol. 1, 727. Greene would be troubled throughout his life about the public perception of his actions that day. While northern newspapers initially excused the lack of pursuit – “The Monitor did not pursue, probably on account of the heating of her guns, or some other equally good reason,” reported the New York Tribune just days after the battle. But questions would persist and become more shrill and minatory as time passed. The preparation of Greene’s 1884 memoir apparently brought the old demons back. Greene shot himself before the article went to print.
once more through the port and saw the ‘Monitor’ going as fast as she could toward Fortress Monroe, she had given up the fight.”

Both sides claimed victory.

Thus, as naval battles went, it was largely uneventful. The two ironclads danced a slow pas de deux with one another for four hours, testing their capabilities and their armor. But they did so before an international audience. The importance of the two-day battle lay not so much in who won the field on the final day, however. The immediate importance for the Confederates was that they had destroyed Union vessels and had kept the James River from being an easy roadway to Richmond for the Union. For the Union, the blockade, though battered, had been maintained. For the US Navy, Gideon Welles felt that “the action of the 10th [9th], and the performance, power, and capabilities of the Monitor, must effect a radical change in naval warfare.” For the world, however, the importance had less to do with an action in a civil war in America, and more to do with the future of warship design.

Steam-powered, ironclad vessels made more impervious to both shot and shell soon took the place of the wooden walls of the great Age of Fighting Sail. Steam power and the revolving gun turret would assure that the graceful white wings of sailing ships would give way to the black coal smoke that broke the ships free from old broadside tactics.

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64 Memoir of Richard Curtis as quoted in Perspectives on the Civil War, The Mariners’ Museum, Newport News, VA publication date unknown, 19.

65 Welles to Worden, March 15, 1862 in ORN Series I, Volume 7, 38.