

= USS Roanoke (1855) =

USS Roanoke was a wooden @-@ hulled Merrimack @-@ class screw frigate built for the United States Navy in the mid @-@ 1850s . She served as flagship of the Home Squadron in the late 1850s and captured several Confederate ships after the start of the American Civil War in 1861 . The ship was converted into an ironclad monitor during 1862 ? 63 ; the first ship with more than two gun turrets in history . Her conversion was not very successful as she rolled excessively and the weight of her armor and turrets strained her hull . Her deep draft meant that she could not operate off shallow Confederate ports and she was relegated to harbor defense at Hampton Roads , Virginia for the duration of the war . Roanoke was placed reserve after the war and sold for scrap in 1883 .

= = Description = =

Roanoke was 263 feet 8 inches (80 @.@ 4 m) long between perpendiculars and had a beam of 51 feet 4 inches (15 @.@ 6 m) . The ship had a draft of 23 feet 9 inches (7 @.@ 2 m) and a depth of hold of 26 ft 2 in (8 @.@ 0 m) . She displaced 4 @,@ 472 long tons (4 @,@ 544 t) and had a burthen of 3 @,@ 400 tons . Roanoke 's hull was strongly reinforced by wrought iron straps . Her crew numbered 674 officers and enlisted men .

The ship had one horizontal two @-@ cylinder trunk steam engine driving a single propeller using steam provided by four Martin boilers . The engine produced a total of 996 indicated horsepower (743 kW) and the ship had a maximum speed of 8 @.@ 8 knots (16 @.@ 3 km / h ; 10 @.@ 1 mph) under steam alone . The propeller could be hoisted and the single funnel lowered to increase speed under sail alone . Roanoke was ship rigged and had a sail area of 28 @,@ 008 square feet (2 @,@ 602 m²) . In 1861 , the ship 's armament consisted of one 10 @-@ inch (254 mm) smoothbore Dahlgren pivot gun , twenty @-@ eight 9 @-@ inch (229 mm) Dahlgren guns and fourteen 8 @-@ inch (203 mm) Dahlgren guns . The 10 @-@ inch Dahlgren weighed 12 @,@ 500 pounds (5 @,@ 700 kg) and could fire a 103 @-@ pound (46 @.@ 7 kg) shell up to a range of 3 @,@ 000 yards (2 @,@ 700 m) at + 19 ° elevation . The nine @-@ inch gun weighed 9 @,@ 200 pounds (4 @,@ 200 kg) and could fire a 72 @.@ 5 @-@ pound (32 @.@ 9 kg) shell to a range of 3 @,@ 357 yards (3 @,@ 070 m) at an elevation of + 15 ° . The eight @-@ inch Dahlgren had a range of 2 @,@ 300 yards (2 @,@ 100 m) at an elevation of + 10 ° with a 51 @.@ 5 @-@ pound (23 @.@ 4 kg) shell . It weighed 6 @,@ 500 pounds (2 @,@ 900 kg) .

= = = Steam frigate service = = =

Roanoke , named after the Roanoke River , was laid down at the Norfolk Navy Yard in May 1854 and launched on 13 December 1855 . The ship sank when launched and had to be refloated before she could be completed . She was commissioned on 4 May 1857 with Captain John B. Montgomery in command .

Assigned to the Home Squadron as flagship , Roanoke transported the American filibuster and former President of Nicaragua , William Walker , and his men back to the United States from Aspinwall , Colombia , (now called Colón , Panamá) . Roanoke arrived on 4 August and the ship was decommissioned at the Boston Navy Yard on 24 September 1857 . Recommissioned on almost a year later on 18 August 1858 , Roanoke resumed her duties as flagship of the Home Squadron . For over a year , she was stationed at Aspinwall awaiting the arrival of the first Japanese embassy to the United States to ratify the 1858 Treaty of Amity and Commerce . They reached Aspinwall on 25 April 1860 and Roanoke reached Hampton Roads on 12 May 1860 with the delegation and was again decommissioned .

After the start of the Civil War , Roanoke recommissioned on 20 June 1861 and was assigned to the North Atlantic Blockading Squadron . She destroyed the schooner Mary off Lockwood Folly Inlet , North Carolina , on 13 July 1861 . The ship subsequently helped to capture the schooners Albion and Alert and the ship Thomas Watson off Charleston , South Carolina , on 15 October 1861 .

Roanoke 's deep draft prevented her from engaging the Confederate casemate ironclad CSS

Virginia (her former sister USS Merrimack) during the Battle of Hampton Roads on 8 ? 9 March 1862 . The ship ferried north survivors from the sailing frigates USS Congress and USS Cumberland which Virginia had sunk . She arrived at New York City on 25 March , and decommissioned the same day to begin reconstruction as a monitor .

= = = Ironclad reconstruction = = =

On 19 March 1862 , 10 days after the Battle of Hampton Roads where the Monitor fought the Confederate ironclad Virginia to a standstill , John Lenthall , Chief of the Bureau of Construction and Repair , and the Chief of Steam Engineering , Benjamin F. Isherwood , wrote a letter to Gideon Welles , the Secretary of the Navy recommending that Roanoke be converted into a seagoing ironclad as that would be cheaper and faster than new construction . They suggested that the ship be cut down to the top of her gun deck , armoring her sides and deck and mounting four revolving Ericsson gun turrets , each mounting two 12 @-@ inch (305 mm) or 15 @-@ inch (381 mm) guns . This scheme would give her an ample 6 feet (1 @.@ 8 m) of freeboard . Aside from reinforcing her hull to carry the weight of the turrets , the only other changes that they recommended were the elimination of the hoisting screw , replacement by a propeller smaller in diameter , and the addition of a ram . The wrought iron side armor would be a maximum of 6 inches (152 mm) in thickness with a taper down to 4 @.@ 5 inches (114 mm) at its bottom edge , about 4 feet (1 @.@ 2 m) below the waterline . The deck armor was to be 2 @.@ 5 @-@ inch (64 mm) thick and an additional steam engine would be necessary to rotate the turrets and run the ventilation fans . They estimated that this conversion would take three and a half months and cost \$ 495 @,@ 000 .

Welles accepted their recommendation and Roanoke began her reconstruction at the Brooklyn Navy Yard when she arrived in New York City on 25 March . The navy yard removed her masts , rigging and everything above the upper deck except her funnel while the Novelty Iron Works received a contract in early April to shape and mount all of her metal work . To save weight the number of turrets was reduced to three and her deck armor to 1 @.@ 5 inches (38 mm) . Each turret was virtually identical to those of the Passaic @-@ class monitors and consisted of eleven layers of 1 @-@ inch (25 mm) plates . The forward two turrets were surmounted by a stationary pilothouse with armor nine inches thick . Novelty was given a choice in protecting Roanoke 's sides , it could either with six layers of 1 @-@ inch (25 mm) plates or a single plate 4 @.@ 5 inches (114 mm) thick that reduced to 3 @.@ 5 inches (89 mm) inches below the waterline . It chose the latter and delays in their delivery were largely responsible for drawing out the reconstruction time to around a year . The plates were manufactured by the " Franklin Forge " of Tugnot , Dally & Co .

An auxiliary boiler was added to provide steam for the engines that powered the turrets , fans and steering and little to nothing was done to reinforce the hull to withstand the weight of her armor and turrets . The deck beneath each 125 @-@ long @-@ ton (127 t) turret was reinforced by a series of stanchions that transferred their weight to the ship 's bottom , which was not reinforced to handle their weight . The stress caused Roanoke to leak around 1 @.@ 5 feet (0 @.@ 5 m) per day by the end of the war . In her new configuration , her crew numbered 347 officers and men .

Roanoke was armed with two muzzle @-@ loading smoothbore 15 @-@ inch Dahlgren guns , two 11 in (279 mm) Dahlgren guns and a pair of eight @-@ inch , 150 @-@ pounder Parrott rifles . The forward turret mounted one 15 @-@ inch Dahlgren and a 150 @-@ pounder Parrot rifle , the middle turret was fitted with 15- and 11 @-@ inch Dahlgrens and the aft turret with one 11 @-@ inch Dahlgren and a 150 @-@ pounder rifle . Shortages of the 15 @-@ inch Dahlgren forced the substitution of two 11 @-@ inch Dahlgrens . Each of the former guns weighed approximately 43 @,@ 000 pounds (20 @,@ 000 kg) . They could fire a 350 @-@ pound (158 @.@ 8 kg) shell up to a range of 2 @,@ 100 yards (1 @,@ 900 m) at an elevation of + 7 ° . The 11 @-@ inch Dahlgren weighed 16 @,@ 000 pounds (7 @,@ 300 kg) and could fire a 136 @-@ pound (61 @.@ 7 kg) shell up to a range of 1 @,@ 710 yards (1 @,@ 560 m) at + 5 ° elevation . The 150 @-@ pounder Parrot rifle weighed 16 @,@ 300 pounds (7 @,@ 400 kg) and fired eight @-@ inch shells that weighed 132 to 175 pounds (60 to 79 kg) .

Roanoke was also fitted with an ax @-@ shaped ram . It was formed from two 4 @.@ 5 @-@ inch

plates that projected past her bow and presumably was the height of a single plate , 24 inches (0 @. @ 6 m) .

= = = Ironclad service = = =

The ship was accepted by the Navy on 16 April 1863 although she was not recommissioned until 29 June , the first warship with more than two turrets in history . Ignoring pressure by local politicians to keep Roanoke in New York , the Navy ordered her to Hampton Roads , Virginia , to join the blockading squadron there . On the voyage south , the ship reached a maximum speed of 8 @. @ 5 knots (15 @. @ 7 km / h ; 9 @. @ 8 mph) and averaged 7 knots (13 km / h ; 8 @. @ 1 mph) . Captain Benjamin F. Sands reported that the ship 's roll was so great that it would " preclude the possibility of fighting her guns at sea , and I was obliged to secure them with pieces of timber to prevent them fetching away " . Roanoke was assigned as harbor defense ship at Hampton Roads where she remained through the end of the war . On 14 July , Sands test @-@ fired his guns for the first time and both of the 15 @-@ inch Dahlgrens and one 150 @-@ pounder Parrott rifle dismounted themselves by their violent recoil . Her rear turret required nearly 5 minutes to make a full rotation . Captain Guert Gansevoort replaced Sands in command of the ship later in 1863 . He was succeeded by Captain Augustus Kilty .

Roanoke arrived back in New York on 27 April 1865 . She was decommissioned and placed in reserve on 20 June at New York Navy Yard . The ship 's only postwar service was as flagship of the Port Admiral at New York . She was recommissioned on 13 January 1874 until reduced to reserve again on 12 June 1875 . On 5 August 1882 , Roanoke was struck from the Navy List and later sold for scrap on 27 September 1883 .