THE BLOCKADE OF WILMINGTON, NORTH CAROLINA:
1861-1865

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by
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This study examines the Union blockading squadron stationed off the Cape Fear River Inlets during the Civil War. Wilmington, North Carolina, was perhaps the most important city in the South with the exception of Richmond, Virginia. The blockade of this port was thus one of the most vital objectives of the United States Navy. This paper examines the performance of the naval vessels stationed at Wilmington, and the problems that affected their performance.

The United States faced many obstacles in trying to implement the blockade of the Confederacy. The Union navy was not prepared to blockade the South with the small number of vessels available for naval service. There were several other factors that influenced the slow implementation of the blockade. Among these were the unpreparedness of the Navy Department, international legal problems, and geographic peculiarities in the Wilmington area.

Construction and repair problems also hindered an effective blockade and kept many vessels from their stations during the entire war. The department was plagued by an incapacity of construction, which threw much of the burden on the private shipyards. The small number of first class repair facilities, and the navy's inability to execute work quickly greatly affected the blockade's effectiveness by keeping vessels off the blockade, or by making it necessary for crippled vessels to remain at their stations.
Logistical problems were a less obvious factor that decreased the strength of the blockade. The great distance between Wilmington and Fortress Monroe produced a situation early in the war that made the vessels at Wilmington logistic cripples. The navy alleviated somewhat its difficulties by turning Beaufort into a logistical base for the vessels off Wilmington and North Carolina's sounds.

The Navy Department realized early in the war that Wilmington would be difficult to blockade. Thus the department from the first months of the war planned the capture of Wilmington. Several plans were drawn up during the war but were abandoned in favor of higher priority objectives. In January, 1865, the navy captured Fort Fisher sealing Wilmington for the rest of the war.

The Squadron Commanders off Wilmington attempted to seal the port by tactical innovations. Rear Admiral Samuel P. Lee implemented most of the tactical gambits that were used, and Rear Admiral David D. Porter, his successor, used Lee's framework and added some minor changes. The change in tactics over four years, however, never made the blockade entirely effective. The trade carried in and out of this port enabled the beleaguered Confederacy to provision and arm itself to a degree not realized at any other port.
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DEAN OF THE GRADUATE SCHOOL
IMPLEMENTING THE UNION BLOCKADE

The maritime prerogative of a nation to close the ports of an enemy is known as a blockade. Land blockades are as old as war itself and were practiced by the Greeks and Romans. Cities and forts have always been blockaded by armies in order to prevent the garrisons or inhabitants from obtaining supplies, forcing their surrender through exhaustion. A sea blockade is no different with the exception that it is on a larger scale, not intended to effect a single city, but a country as a whole.¹

The blockade of the Confederacy was a strategic maneuver designed to put economic pressure on the South in order to shorten the war. The sea and shipping were important for importing manufactured goods to the South's agrarian-based economy. The North, in contrast, developed as a large and powerful industrial section. From the very inception of the blockade it became clear that the United States intended to isolate the Confederacy from the seas, weakening or destroying her foreign trade. If the Union could accomplish this feat, it would force the South to wage war with the materials on hand, which would leave her people having to fight against the more economically powerful North.

The Confederacy also lacked marine industries and the means to match the North in shipbuilding. It had only a few small iron working establishments, and none that could manufacture marine engines. The

Confederacy needed vessels to carry on her important foreign trade. The Confederacy lacked not only commercial vessels but also naval vessels, which limited the Confederacy to vessels which could be seized or those that could be purchased abroad.²

After the commencement of hostilities by both the North and South, Abraham Lincoln issued a proclamation calling for 75,000 of the standing militia and authorized an increase of 18,000 men in the navy. Since the United States had "announced the intention of invading the Confederacy with an armed force so as to bring the South under domination," Jefferson Davis, President of the Confederacy, on the seventeenth of April, 1861, began issuing letters of Marque.³ These letters gave persons who applied to Davis the right to engage in privateering under certain restrictions. These restrictions, though, were minimal and the authority maximal.⁴

On April 19, Lincoln countermanded Jefferson Davis's "legalized piracy" by proclaiming a blockade on the states of Georgia, South Carolina, Alabama, Florida, Mississippi, Louisiana, and Texas, with a "competent force . . . posted so as to prevent entrance and exit of

²Richard S. West, Jr., Mr. Lincoln's Navy (New York, 1957), 51, hereinafter cited as West, Mr. Lincoln's Navy.


vessels." On the twenty-seventh he issued a second proclamation extending the blockade to cover the coasts of North Carolina and Virginia.  

In May, 1861, General Winfield Scott, General in Chief of the Army, agreed to the establishment of a blockade. Scott further proposed to move sixty thousand men accompanied by gunboats to seize and hold the Mississippi River, from Cairo, Illinois, to the Gulf of Mexico in order to isolate the South economically and politically. Popular opinion in both the North and South held that the war would be very short; the militia had been called into service for only ninety days, not enough time for Scott's plan to be implemented.  

When Abraham Lincoln ordered the entire southern coast blockaded, he had no idea of the vast problems that were to arise in its legal implementation. The blockade became one of the most complicated and controversial matters in foreign affairs during the nineteenth century. Conflicts between the United States and European countries occurred almost daily over this physical interruption of the Confederacy's foreign commerce. The War between the States became not only a military conflict but an international legal battle over freedom of the seas. Establishing a blockade required a legal base upon which to set it.  


There were two methods by which the Union could interrupt the South's commercial trade. If it acted on the assumption that the rebellion was an internal struggle, then the government could choose to close its ports by municipal law. However, if the United States closed its ports, Europe did not have to acknowledge this action because international law did not recognize the closure of ports. A blockade was the alternative solution. By issuing a notification of blockade the Union gave the Confederacy belligerent status because a blockade is a belligerent right, one that implies there is fighting with an outside enemy.  

To avoid what he thought would lead to international complications over this internal struggle, Secretary of State William Henry Seward convinced Lincoln to institute the blockade in order to shelter the government under international law. "The one great object of the blockade instead of closure of the ports," he told the President, "[was] to avoid complications which would likely involve us in a foreign war."  Seward faced political, legal, and international problems in trying to have the blockade implemented. His attempt to solve the troubles indicates his moderate stand and ingenuity in dealing with diplomatic problems concerning the Confederacy's foreign trade.

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7Glydon G. Van Deusen, William Henry Seward (New York, 1967), 300, hereinafter cited as Van Deusen, Seward.


9Van Deusen, Seward, 300.
International law on the subject of a blockade is clear. A state cannot blockade its own ports, it can only blockade the ports of an enemy. By U. S. law the Union could order a closure of its ports, but it would not be effective because an offender against the ordinance of closure could only be dealt with in American waters. On the other hand, an offender of a blockade could be chased into open sea.  

Some members of Lincoln's cabinet favored closing the ports rather than a blockade. This appeared to be very simple, requiring only an executive order; but there were legal loopholes. Any vessel that defied this order by attempting to run into a closed port would have only violated a United States revenue law. The offender thus could only be tried in a federal court in the state and district where the infraction occurred. One of the greatest fears concerning the closure of ports was that it might be considered by foreign countries an attempt at a "paper blockade."  

Secretary of the Navy, Gideon Welles, perhaps the most outspoken critic of the blockade, saw the dangers of this course of action. He wrote: "There ought to have never been a blockade. We had placed ourselves in a wrong position at the beginning, made the rebels, belligerents, given them nationality—an error, an anomaly. It was one of Mr. Seward's mistakes." Welles wrote to Seward asking whether the

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United States should for "security and protection assume higher ground than that of a mere blockade, which is an act affecting belligerent and neutral nations." He went further by stating that since this was an internal question, it should be handled by domestic laws, and by applying the rules of the blockade the United States was "compelled to concede them all the privileges . . . enjoyed in international intercourse."\(^{13}\)

Prior to the conflict, America's position on the rights of neutrals at sea was well known. This concept of international maritime rights had been embodied in our presidential messages, diplomatic memoranda and correspondence, and treaties.\(^{14}\) When Lincoln declared the entire southern coast from the Potomac to the Rio Grande under a blockade, he laid down the foundations of a paper blockade that remained for a good portion of the war. The United States cast aside her traditional position as the defender of neutral rights by announcing this ineffectual blockade, which completely reversed its former position on belligerent and neutral rights. The methods and measures used by the Union to enforce the blockade were those which England had signed away at the Declaration of Paris in 1856, thus the United States unintentionally sided with the British.\(^{15}\)

Implementation of the blockade required the United States to follow a legal format recognized by international law. The nations of Europe

\(^{13}\)Richard S. West, Jr., Gideon Welles, Lincoln's Navy Department (New York, 1943), 117-118, hereinafter cited as West, Gideon Welles; Gideon Welles, Lincoln and Seward (Reprint, New York, 1969), 122-123, hereinafter cited as Welles, Lincoln and Seward.


\(^{15}\)Owsley, "America and Freedom on the Seas," 195.
adhered to the rules and regulations set down in the Declaration of
Paris in 1856 as the laws that govern a blockade. About forty
countries embracing nearly all of Europe and South America signed the
Declaration. 16

The Declaration included four major points dealing with maritime
law: (1) privateering is and remains abolished, (2) the neutral flag
covers the enemy's goods, with the exception of contraband of war,
(3) neutral goods, with the exception of contraband of war, are not
liable to capture under the enemy's flag, and (4) a blockade in order
to be binding must be maintained by a force sufficient to prevent
access to the coast of the enemy. 17

The United States had not signed the Declaration because the use of
privateers had not been excluded. On April 24, 1861, the United States
reversed itself upon the Declaration. Seward instructed his agents
abroad that the United States would now be bound to the Declaration.
Seward's plan had certain advantages for the Union. Under the
Declaration, the United States would renounce privateering, which had
been the reason for not signing the Declaration, and accept the other
three major points. Seward hoped for two things: (1) the powers would
stop southern privateering, and (2) would not give recognition to the
Confederate government as belligerents, both of which failed. 18

16 Henry Wheaton, Elements of International Law (New York, 1964),
381, hereinafter cited as Wheaton, Elements of International Law.

17 Law, International, Subject File (n.d.), Naval Records Collection
of the Office of Naval Records and Library, Record Group 45, National
Archives, Washington, D. C., hereinafter cited as Law, International,
R.G. 45, N.A.

18 D. P. Crook, The North, the South and the Powers, 1861-1865
(New York, 1974), 67, hereinafter cited as Crook, The North, the South
In accepting this doctrine it became necessary for the United States to follow certain rules and regulations so as not to get entangled in legal confrontations. Commanders of vessels were instructed that "the blockade must be strict and absolute, and only public armed vessels of foreign powers are to be permitted to enter the ports which are placed in a state of blockade." Vessels also were to protect American commerce from the "depredation of privateers," and to capture them when they could do so without leaving their stations.19

A lawful blockade requires the actual presence at all times of an adequate force stationed at the entrance of a port sufficiently near to prevent communication. The only exception to this rule arose out of the occasional and temporary absence of the blockading vessels, as in the case of a storm, which would not suspend the legal operations of the blockade. A vessel attempting to take advantage of this temporary absence would suffer the penalties of international law.20

Before a lawful blockade could be set up, the commander had to notify the authorities on shore that a blockade had been established, and all foreign vessels were allowed fifteen days to leave the port with or without cargo. After this period the port would be officially blockaded and all violators subject to seizure.21

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19Law, International, RG. 45, N.A.

20Law, International RG. 45, N.A.

A blockade is not a normal consequence of war as it has to be particularly instituted. This is in part because it would be impossible to assume that a neutral vessel would have knowledge of its existence. It was necessary to let a neutral vessel know before he could be held responsible for a violation. Two methods of communication could be instituted: (1) a formal notice from the United States, and (2) a formal notice by the neutral's government. Notice to a foreign government was considered a notice to all the individuals of that nation.\(^{22}\)

As foreign or neutral vessels proceeded towards the entrance of a blockaded port, they were not to be captured or detained if they had not received warning of the blockade. Notification was to be "inserted in writing on the register and muster roll of the neutral vessel by the cruiser which meets her," and was to "contain the announcement [of the blockade], together with statements of the day, and the latitude and longitude in which it was made."\(^{23}\) These warnings were to be continued as long as the port remained blockaded, but as the blockade became more efficient, Union officers assumed that a general notice was no longer necessary to be given to individual vessels and they were subject to capture without warning.\(^{24}\)

Many arguments arose over the rights of search and seizure inasmuch as Seward maintained no consistent policy on these matters.


\(^{23}\)Law, International, RG. 45, N.A.

\(^{24}\)Stuart L. Bernath, Squall Across the Atlantic: American Civil War Prize Cases and Diplomacy (Los Angeles, 1970), 8, hereinafter cited as Bernath, Squall Across the Atlantic.
After the British took a central role in blockade-running, Seward became harsher, gave fewer assurances and more warnings. At times he conceded the British more than they expected and at other times pushed belligerent rights to the "boundaries of international law," employing any argument which would best suit him in order to formulate public opinion in such a way as to lift Union morale.  

The British government, cautious of the proclamations of both Lincoln and Davis, announced its neutrality on May 13, 1861. This claim of neutrality was aimed specifically at British subjects who would violate a blockade established by either of the powers. The British were willing to abide by the laws of the blockade set forth by the United States, because their long-term naval interest lay in expanding and affirming the blockade practice. Although the United States policies were at times obnoxious, created resentment and temporary inconvenience to British shipping, and hurt British national pride, they did establish convenient precedents for the British Admiralty for the future.  

The London Times summed up this feeling by stating: "A blockade is by far the most formidable weapon of offense we possess, surely we ought not to be over ready to blunt its edge or injure its temper."  

On May 16, 1861, France confirmed its acceptance of the blockade. The French minister of Foreign Affairs told American minister to France,  

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27The Times (London), February 20, 1862.
William Dayton, that an effective blockade "would be fully recognized and respected." It became clear that Europe would recognize the blockade if it were executed according to international law. The United States had now "stepped over" one of its early problems with the blockade.

Gideon Welles, not fully satisfied with the idea of a blockade, carried his idea of closing the ports before the cabinet. The cabinet hotly debated this issue and was divided on the matter. Lincoln left this measure to Congress's discretion. The question, brought up in a Treasury Department report, carried a recommendation that Congress close the southern ports and empower the President if necessary to collect customs duties on shipboard, without a formal blockade. Penalties for violation were to include forfeiture of both ship and cargo. Congress responded favorably to this recommendation and within a week rushed the proposed bill through both houses and laid it on the President's desk. The President signed the bill, and within two weeks of the introduction of the original bill it became law. The United States now had two means of interdicting southern trade with foreign countries. While this gave great satisfaction to Welles, it greatly alarmed Europe.

This act did not direct the President to close the ports; it merely gave him the power to do so. Lincoln realized the ineffectiveness of his newly acquired power remarking that it "would be like the


29 West, Gideon Welles, 118; Norman B. Ferris, Desperate Diplomacy: William H. Seward's Foreign Policy, 1861 (Knoxville, 1976), 88-89, hereinafter cited as Ferris, Desperate Diplomacy.
Pope's bull to the comet, trade would go on in spite of the law and the executive proclamation." 30 Nevertheless Abraham Lincoln issued a new proclamation on August 16, forbidding intercourse with the insurgent states. 31

The reactions of Europe over this new measure were just as Seward feared, Lord Russel commented:

> It is impossible for Her Majesty's government to admit that the President or Congress of the United States can at one and the same time exercise the belligerent right of blockade, and the municipal right of closing the ports of the South. In the present case, Her Majesty's government do not intend to dispute the right of blockade on the part of the United States with regard to parts in possession of the Confederate States, but an assumed right to close any ports in the hands of insurgents would imply a right to stop vessels on the high seas without instituting an effective blockade. This would be a manifest evasion of the necessity of blockade in order to close an enemy's port . . . . Maritime nations would not submit to this excess under the pretense of the rights of sovereignty. 32

The British Crown Law Officers gave a harsher warning: "Any [such] paper enactment by Congress . . . may be treated as nugatory by the law of the nations and any attempt to enforce it by the seizure and confiscation of a neutral ship may be justly regarded as an act of hostility." 33

Despite these and other threats the United States held firm on its right to close the ports if such action might be considered necessary.

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30 West, Gideon Welles, 118.

31 West, Gideon Welles, 118-119.

32 Lord John Russel to Lord Richard Lyons, July 19, 1861, as cited in Glass, Marine International Law, 160.

England made it clear that she would not recognize the closure of any port. Seward, perceiving the increasing pressure from Europe and fearing foreign intervention, persuaded Lincoln not to use his newly acquired powers. As matters developed, Lincoln did not close a single port until April 11, 1865. Lincoln did this only to make the collection of duties simpler. He did not have to worry about European nations because the threat of foreign intervention was far removed.  

During the early months of the conflict confusion prevailed within the Navy Department. Reorganization occurred to meet the war demands which had been thrust upon the department. Early command over the blockade of Wilmington fell to Flag Officer Garrett J. Pendergrast of the Home Squadron. On April 30, 1861, Pendergrast proclaimed: "I hereby call attention to the proclamation of his excellency Abraham Lincoln . . . under date on 27th April, 1861, for an efficient blockade of the ports of Virginia and North Carolina, and warn all persons interested that I have sufficient naval force there for the purpose of carrying out the proclamation."  

This statement contained erroneous allegations; instead of having a "sufficient naval force" for an "efficient blockade of the ports of Virginia and North Carolina," he did not have enough for Virginia alone. Union naval vessels were not stationed off the Cape Fear for over eleven weeks after Pendergrast's statement.  

On May 1, the command of the Atlantic coast from Alexandria, Virginia to Key West, Florida was transferred to Flag Officer Silas

35Garrett J. Pendergrast to All Whom It May Concern, April 30, 1861, ORN I, IV, 356.
Horton Stringham. Stringham had served in the navy more than fifty years with nearly twenty years as a captain. He had seen action during the Mexican War and during his years as a captain had commanded the Home Squadron, the New York Navy Yard, the Pacific Squadron, the Norfolk Navy Yard, the Mediterranean Squadron, and the Boston Navy Yard.\textsuperscript{36}

His new command, to be called the Coast Blockading Squadron, was responsible for 900 to 1000 miles of coastline. His command consisted of fourteen ships not including the Potomac Flotilla. On May 17, the Coast Blockading Squadron became the Atlantic Blockading Squadron. Stringham probably grasped the weakness of the navy concerning the difficulty of blockading such a vast coastline. The Flag Officer constantly pleaded with Welles to give him more vessels. Welles perhaps convinced by Stringham's pleas wrote; "It is possible that some of the lighter craft may, in thick weather and at night, run the blockade but your great effort will be to prevent it."\textsuperscript{37}

During Stringham's entire command he found, just as each of the later commanders would find, that he could not procure an adequate number of vessels to efficiently blockade the coast. By July 4, 1861, he had 22 vessels, 296 guns and 3,300 men in his command. Stringham did manage to accomplish one thing. He along with General Benjamin F.


\textsuperscript{37} Gideon Welles to Silas Stringham, May 17, 1861, ORN I, V, 635-636; Silas Stringham to Gideon Welles, May 24, 1861, ORN I, V, 664; Gideon Welles to Silas Stringham, June 5, 1861, ORN I, V, 702.
Butler captured Hatteras Inlet. However, the naval commander did not receive proper credit. When the vessels returned to Hampton Roads, the public lambasted his failure to take his fleet into the sounds of North Carolina. Critics of his actions apparently did not know that his vessels were too deep drafted to enter those waters. Stringham became very despondent over this criticism and remained in Hampton Roads with eleven of his ships.38

On September 16, 1861, Stringham, disgusted with the department's criticism of how he conducted the blockade, the public's castigation of the Hatteras expedition, and aware that his ideas were not welcome in Washington, offered his resignation which was accepted. His resignation came at an opportune time. The department had under consideration a recommendation to subdivide the Atlantic Blockading Squadron. With the extensiveness of the coast, the augmented forces, and the complicated nature of the numerous harbors, more than one man was necessary to give adequate supervision requisite for such a service. The reduction in Stringham's command would have forced him to resign, and thus this saved his dignity. The Strategy Board had suggested a division of the Atlantic Coast Squadron into the North Atlantic and the South Atlantic blockading squadrons. The department chose as

commanders two younger and more energetic men. Louis Malesherbes Goldsborough was given command of the North Atlantic Blockading Squadron, and Samuel Francis Du Pont command of the South Atlantic Blockading Squadron.39

The dividing line between the two commands was the North and South Carolina boundary. The new commander of the North Atlantic Blockading Squadron, Louis Goldsborough, was born on February 18, 1805, in Washington, D. C., and had been in the naval service for forty-nine years, entering as a midshipman at the age of seven. He commanded the ship of the line Ohio during the Mexican War, and served as superintendent of the Naval Academy 1853-1857, and later commanded the Brazil Squadron.40

In order for Goldsborough to assume command of the North Atlantic Blockading Squadron, four officers of higher rank than he had to be removed from active command because officers of a higher rank could not serve under him. The two commands were not officially formed until Du Pont left Hampton Roads for South Carolina. Goldsborough therefore for a short period held Stringham's entire command from Cape Henry to the Florida Keys. Goldsborough remarked, "I am

39Silas Stringham to Gideon Welles, September 16, 1861, ORN I, VI, 217; Rowena Reed, Combined Operations in the Civil War (Annapolis, 1978), 19, hereinafter cited as Reed, Combined Operations; Gideon Welles to Silas Stringham, September 18, 1861, ORN I, VI, 231-232; West, Mr. Lincoln's Navy, 82; Gideon Welles to Louis M. Goldsborough, September 18, 1861, ORN I, VI, 233-234.

excessively busy. I have a heavy load on my shoulders, my command now consists of some thirty odd vessels.\textsuperscript{41}

Shortly after assuming command of the North Atlantic Blockading Squadron, Goldsborough proposed to seize Roanoke Island off the North Carolina coast. On February 7, 1862, some ten thousand troops under the command of Brigadier General Ambrose E. Burnside, and supported by seventeen naval vessels assaulted the island, defeating a small force of Confederate gunboats and destroying two forts. Two days after the initial landing the island belonged to the Union. This proved to be a valuable victory for the Union, aiding McClellan’s Peninsula campaign by opening the way for the capture of Norfolk and its naval base.\textsuperscript{42}

By April 9, 1862, Goldsborough had sixty-nine vessels under his command, six of which he stationed at Wilmington. The duties were arduous, keeping him constantly busy. "I can scarcely steal a few hours repose in the twenty-four hours," he wrote.\textsuperscript{43} Gideon Welles criticized Goldsborough for spending too much time in North Carolina waters claiming that Goldsborough stayed "purposely and unnecessarily absent, in my [opinion] . . . through fear of the Merrimack."\textsuperscript{44}

\textsuperscript{41}Gideon Welles to Louis M. Goldsborough, October 12, 1861, ORN I, VI, 313-314; Hayes, Du Pont, I, 150n.; Louis M. Goldsborough to Elizabeth Wirt Goldsborough, September 29, 1861, Louis Goldsborough Collection, Manuscript Department, Library of Congress, hereinafter cited as Goldsborough Collection, L.C.M.

\textsuperscript{42}William N. Still, Jr., "I Can Fight on My Own Terms," Civil War Times Illustrated, XVII (February, 1979), 12-14, hereinafter cited as Still, "I Can Fight on My Own Terms."

\textsuperscript{43}Louis M. Goldsborough to Elizabeth Wirt Goldsborough, April 9, 1862, Goldsborough Collection, L.C.M.; Louis M. Goldsborough to Gideon Welles, April 1, 1862, ORN I, VII, 184.

\textsuperscript{44}Beale, Diary of Gideon Welles, September 20, 1862, I, 142.
Samuel Du Pont thought Goldsborough was a hard working and very able officer. He considered him "conscientious in the discharge of his duties" and "incorruptible in his integrity," but pointed out that he had an "imperious temper."\(^{15}\) Gideon Welles, though, did not have the same high regards for Goldsborough. He wrote in his diary: "He has wordy pretension . . . some capacity, but no hard courage."\(^{16}\)

On July 6, 1862, Welles formed an independent command, the James River Squadron, from part of the North Atlantic Blockading Squadron and gave its direction to Commander Charles Wilkes. This act offended Goldsborough greatly; complaining about an alleged loss of prestige, he asked for relief from his command. Several other factors persuaded him to make his decision. There had been "scurrilous and unmerited attacks on the part of the public prints" against him, and being a family man he wanted to go home, where he had not been in three years.\(^{17}\)

Welles chose Samuel Phillips Lee to succeed Goldsborough. Lee, who was born on February 13, 1812, had less experience as a naval officer than either of the former commanders. Lee, a Virginian by birth, had married into the influential Frank Blair family. He was perhaps one of the more conscientious officers in the navy. These

\(^{15}\)Samuel F. Du Pont to Sophie Du Pont, July 27, 1862, Hayes, Du Pont, II, 163-164.

\(^{16}\)Beale, Diary of Gideon Welles, September 20, 1862, I, 142.

\(^{17}\)Gideon Welles to Charles Wilkes, July 6, 1862, ORN I, VII, 548; Louis M. Goldsborough to Gideon Welles, July 15, 1862, ORN I, VII, 573-574; West, Gideon Welles, 195; Christopher Raymond Perry Rodgers to Silas Du Pont, July 18, 1862, Hayes, Du Pont, II, 163-164; Louis M. Goldsborough to Elizabeth Wirt Goldsborough, May 29, 1861, Goldsborough Collection, L.C.M.
qualities at times seemed to hinder operations rather than promote efficiency. Lee soon realized the problems which both of his predecessors had experienced. The problems sired by the largest squadron in the navy were not to be overcome easily.\textsuperscript{48}

The problem of bureaucracy became an impediment to efficiency. Lieutenant Commander John Sanford Barnes served as Captain of the fleet during the latter half of Lee's appointment. Barnes had a good insight into the workings of the squadron, and left in his memoirs excellent descriptions of Lee's administrative duties. The growth of responsibility resulted in enormous mountains of paper work, keeping Lee "scribbling from morning till night."\textsuperscript{49} This problem developed because of an inadequate clerical staff to handle the work. The responsibility which Lee assumed caused normally established procedures to crumble under the burdens of the bureaucracy.

Lee could not stand the possibility of indiscretion or inaccuracy in his official correspondence, hence reports were "written and rewritten . . . altered in phraseology and not in meaning, signed and sealed, reopened and reread, criticized and discussed, repunctuated, sometimes to a wearisome minutiae . . . ."\textsuperscript{50} A large problem stemmed

\textsuperscript{48}Dictionary of American Biography, VI, 129-130; Hammersly, The Records of Living Officers, 30-31; RSN \textit{1861}, XI-XII.


\textsuperscript{50}John Sanford Barnes, "My Egotistography," New York Historical Society, New York, as cited in Merrifield, "Seaboard War," 143-144.
from Lee's failure to delegate the routine details of the squadron to his subordinates. All the problems such as repairs, reassignments, absences for fuel, provision reports, paymaster reports, consular reports, reports to Gideon Welles, and a myriad of reports to his subordinate commanders kept him busy every waking hour.

Barnes described Lee as courteous, modest, retiring, careful, and conservative. He never expressed himself impulsively or emphatically and then generally with reservations. Another of Lee's staff called him solemn and serious. Welles considered Lee "true and loyal, careful, and circumspect almost to a fault, but, while vigilant, he has not dash and impetuous daring ...."51

Lee managed to keep the status quo at Wilmington during his command, but never took part in any military move during the war. For this reason General Ulysses S. Grant did not consider him competent to lead an expedition to capture the forts at the entrances of the Cape Fear River and asked him to be relieved before he would consent to give any men for a combined attack. Welles therefore relieved him on September 17, 1864. Welles "knew him to be cautious and vigilant, but not, perhaps the man for the immediate demonstration, an assault requiring prompt action."52 The man wanted as Lee's replacement, Rear Admiral David Glasgow Farragut, could not take the command because of

51 Merrifield, "Seaboard War," 144; Beale, Diary of Gideon Welles, August 30, 1864, II, 127.

52 Beale, Diary of Gideon Welles, September 27, 1864, II, 161; Gideon Welles to Samuel P. Lee, September 17, 1864, ORN I, X, 467.
his "necessity of rest"; so on October 12, Rear Admiral David Dixon Porter took command of the squadron.  

Porter became the fifth person to command the vessels off Wilmington in less than four years. Porter, born on October 12, 1813, like Lee did not have as much prewar combat experience as the other commanders. Porter served aboard the Spitfire as First Lieutenant during the Mexican War, commanded the Powhatan at the war's outbreak, helped plan the New Orleans expedition, and received command of the Mississippi Squadron on October 9, 1862. Porter's command of the North Atlantic Blockading Squadron was brief, lasting less than seven months. Porter's greatest difficulties ended with the fall of Fort Fisher on January 15, 1865, but he had accomplished the task that he was chosen to do.

It had taken almost four years to close the port of Wilmington to foreign commerce. This was in part because the Union navy found it impossible to quickly establish an effective blockade of the vast southern coast. The establishment of the blockade was irregular for many reasons. Because of a shortage of vessels, the navy stationed small squadrons at the principal commercial ports, and supplemented these ships with a force of vessels that cruised up and down the coast. The United States government considered this adequate to meet the requirements of a legal blockade. The total number of ports to be

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covered numbered only four or five on the Atlantic Coast. Thus, the early strategy of the Union navy was a "rifle" type of approach covering only the most important ports, mainly because there were not enough vessels to do otherwise.

Confederate Secretary of State Judah P. Benjamin remarked in 1861, "It is notorious, that there is a large number of ports within the Confederacy and a vast extent of coast absolutely free from any investigating force." In addition to these "vast stretches of coast" that had been left unguarded, Benjamin could name twenty ports that were free of any hostile vessels and many which had never been visited by a Union ship. This absence, Benjamin proclaimed was an illegal blockade and thus flagrantly violated international law as recognized by England and the rest of Europe.

Perhaps the most important reason for the slow and ineffectual establishment of the blockade was the physical and material weakness of the navy at the outset of the war. The burning and abandonment of the Gosport Navy Yard at Norfolk contributed greatly to this weakness. The day after Lincoln issued his proclamation calling for a blockade, the remains of the navy yard at Norfolk fell into the hands of the Confederacy. If the Union navy had used any foresight, the loss of the materials in the yard could have been avoided; thus the North would have

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55 James Russel Soley, The Blockade and the Cruisers (New York, 1883), 34, hereinafter cited as Soley, The Blockade and the Cruisers.

56 Frank Lawrence Owsley, King Cotton Diplomacy: Foreign Relations of the Confederate States of America (Chicago, 1931), 451-452, hereinafter cited as Owsley, King Cotton Diplomacy.

57 Owsley, King Cotton Diplomacy, 451-452.
been in better shape to carry out a blockade. In the capture of the yard the Confederacy gained over 3,000 pieces of ordnance including some 300 Dahlgren guns of the most modern type, a fine dry dock, several well equipped workshops, and a horde of other materials and small arms. The materials left behind enabled the beleaguered Confederacy to arm its fortifications on the coast at a time when the South had virtually no facilities for producing ordnance.  

There were eleven ships lost at the Norfolk yard, the most important being the steam frigate Merrimack. The navy also lost the sloops of war Plymouth and Germantown, and the brig Dolphin, all of which were ready for sea. The older ships lost included the Pennsylvania, the United States, the Columbus, the Delaware, the Raritan, the Columbia, and an unfinished ship of the line, the New York. The loss to the United States was estimated at $1,980,000. Admiral Porter later observed about this loss that "great as was . . . the loss of our ships, . . . it was much less than the loss of our guns."  

The loss of these vessels weakened a navy that was already far from strong. The navy register in 1861 listed only ninety vessels. Of these, fifty were sailing vessels of the older type, ships of the line.

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frigates, sloops, and brigs, several which had never been completed. All the sailing vessels in their day had been first class vessels, but were now obsolete. The Constitution and the United States headed the list, but both were built in the previous century and were useful only as receiving and training ships.61

The other forty were steam vessels. Five were unservicable, two of the five still unfinished and the other three useful only as receiving ships. Two of the forty were tugs and along with the Michigan were stationed in the Great Lakes. Eight others, including five steam frigates, were in ordinary.62 Two armed vessels were on the Atlantic Coast at the outbreak of war: the Brooklyn carrying twenty-five guns, and the storeship Relief of two guns. The Brooklyn though drew too much water to be of use in the shallow southern waters. The remaining twenty-two vessels were on the foreign stations or in the Gulf of Mexico, some would take as long as six months to arrive in the United States.63

Five steam frigates constituted the main element of American naval strength, but all were in ordinary at the outbreak of the war. These ships, the Merrimack (burned and scuttled at Norfolk), the Wabash, Minnesota, Roanoke, and Colorado, were a new class of frigates built in the 1850's. Their hulls were long in proportion to their breadth, their bows sharp, and sterns rounded. The Minnesota, typical of this

61 Soley, The Blockade and the Cruisers, 12.
class, measured 269 feet in length, 51 in breadth, and was armed with one 200-pound rifled parrot cannon, four 100-pound rifled guns, one 11-inch smooth bore, and thirty-six 9-inch smooth bore guns, a most formidable warship. None of these ships, however, could perform to their capabilities because of the South's shallow waters and the vessels' deep drafts.  

Manpower problems plagued the navy during the whole war. Officers sympathetic to the southern cause left the Union navy along with a handful of old and useless officers. There were no provisions for retirement; the long years of peace and unbroken course of seniority caused promotion to fill the ranks with men unfit for service. This system advanced men, disregarding qualifications and competency. The sudden exodus of officers and men to the South, had left the navy with ships and few officers to command them. Gideon Welles in order to counter this sudden depletion recruited qualified civilians to serve as officers. A board examined each prospect as to his merit, experience, and character.

There had been no scarcity of sailors in the early months of the war because the general depression in commerce had thrown much of the merchant marine out of work. As the war progressed, the number of

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64James M. Merrill, The Rebel Shore: The Story of Union Sea Power in the Civil War (Boston, 1957), 5-6, hereinafter cited as Merrill, The Rebel Shore; ORN II, I, 145.
65Merrill, The Rebel Shore, 7.
66Soley, The Blockade and the Cruisers, 4-6.
67Stivers, Privateers and Volunteers, 199.
68Herald (New York), August 12, 1861.
sailors decreased because of the army's indiscriminate recruitment policies, along with the high bounties paid. Even after several months of war, vessels continued to lie at their berths waiting for crews. 69

The Navy Department found many obstacles in trying to run the department smoothly. Welles's efforts were often hindered by Congress. The members of the Senate Naval Affairs Committee at times interfered in the affairs of the department. Welles commented:

The interference of members of Congress in the organization of the navy yards, and the employment of working men is annoying beyond conception. In scarcely a single instance is the public good consulted in their interference, but a demoralized, debauched system of personal and party favoritism has grown up . . . . No person representing a district in which there is a navy yard ought ever to be placed on the Naval Committee. 70

The absence of frequent cabinet meetings also impeded operations. Welles later convinced Lincoln of the necessity of regular meetings. 71

In order to manage the problems and to take some of the burden off himself, Gideon Welles pushed through Congress a bill to create the position of Assistant Secretary of the Navy. Welles chose a capable assistant, Gustavus Vasa Fox. Fox had served for eighteen years as a naval officer and kept himself well informed on naval technical matters. He had been an executive of a large cotton mill in Lowell, Massachusetts, and was considered aggressive, tactful, and persuasive. Welles and


70Beale, Diary of Gideon Welles, December (n.d.), 1863, I, 483.

71West, Gideon Welles, 119.
Fox made a perfect team in building the navy to meet the immediate needs of the blockade. 72

The early problems of the Navy Department had a direct impact upon the navy's problems at Wilmington. Wilmington was left virtually unblockaded for three months after Lincoln's proclamation. The first vessel stationed off Wilmington, the Daylight, arrived on the thirteenth of July, 1861, and began cruising in the area. But the Daylight gave no formal declaration of the blockade until the twenty-first. She immediately experienced the problems related to blockading the dual entrances to the Cape Fear. A small steamer passed out of the Western Bar entrance. The Daylight sighted the vessel, and on her trip around the shoals, several other small vessels passed out the New Inlet entrance. 73 The ineffectiveness of the blockade at this time is illustrated by the fact that during the months of June, July, and August, forty-two vessels entered and cleared from Wilmington. 74

Wilmington, North Carolina, the principal seaport and North Carolina's largest city with a population of nearly ten thousand inhabitants, had always been important to the state. No one realized at the outbreak of hostilities that this staid old town would become synonymous with the word blockade. Wilmington had been a busy port during the antebellum days, boasting the largest naval stores market in the country. The principal products were tar, pitch, and turpentine, with

72 West, Gideon Welles, 116.

73 Samuel Lockwood to Silas Stringham, July 16, 1861, ORN I, VI, 11-12; Abstract log of the Daylight for July 21, [1861], ORN I, VI, 691-692.

74 Soley, The Blockade and the Cruisers, 88-89.
exports consisting also of lumber, rice, and cotton. Small sailing
craft carried on most of this trade with other American ports, with few
exchanges made with other nations. The foreign trade basically cen-
tered around the exportation of lumber products. From two to three
dozen ships arrived and cleared weekly during the peak trading
seasons.75

The commercial influences were not the only reasons for
Wilmington's growth and importance to the Confederacy. The North
Carolina coast consisted of a long narrow belt of sand that protruded
into the Atlantic in three places, broken by shallow inlets, and two
large sounds. This configuration of the coast made a blockade more
difficult. Geography and communications determined Wilmington's
importance to the Confederacy. The town itself lay thirty miles from
the mouths of the Cape Fear River. The Cape Fear could be navigated as
far as Fayetteville, one hundred miles upstream, and its tributaries
were also navigable for shorter distances. Between the two inlets
stood Smith's Island stretching for ten or twelve miles into the ocean.
Extending further into the Atlantic for about twenty miles lay Frying
Pan Shoals. This made the distance between the inlets by sea some
forty to fifty miles while the distance directly between them was only
six or seven. The double inlets made it necessary to keep two separate

75 The Daily Journal (Wilmington), April 4, 1861; Henry Jadson
Beeker, "Wilmington During the Civil War" (unpublished masters thesis,
Duke University, Durham, 1941), 1-3, hereinafter cited as Beeker,
"Wilmington During the Civil War"; Richard Everett Wood, "Port Town
at War: Wilmington, North Carolina 1860-1865" (unpublished doctoral
dissertation, Florida State University, Tallahassee, 1976), 1-2,
hereinafter cited as Wood, "Port Town at War"; The Wilmington Daily
Herald, March 2, 9, 1861.
blockading forces off the coast making it possible for a blockade violator to choose the inlet which best suited his intentions. This separation compounded the existing problems, especially communication, coherence, and support. 76 (See Figure 1.) The shallow southern coast also made it impossible for deep drafted vessels to blockade effectively. In 1861 the Union Secretary of the Navy pointed to the fact that "our principal naval vessels are not, from their great draft of water, adapted to blockade service on our shallow coast." 77

Besides geographical advantages, Wilmington also had good rail connections. The Wilmington and Manchester Railroad ran to Florence, South Carolina, and had connections with Charleston. The unfinished Wilmington, Charlotte, and Rutherford Railroad ran west. The major railroad, the Wilmington and Weldon, ran almost due north to Weldon where it connected with the Petersburg Railroad giving connections to Richmond. This line lay inland out of reach of the menacing Union army and thus formed the principal north-south line east of the Blue Ridge. 78 (See Figure 2.)

76 Wood, "Port Town at War," 1-2; Soley, The Blockade and the Cruisers, 87; John Johns, "Wilmington During the Blockade," Harpers New Monthly Magazine, XXXIII (September, 1866), 497-503, hereinafter cited as Johns, "Wilmington During the Blockade"; James Sprunt, Chronicles of the Cape Fear River (Spartanburg, 1974), 5, hereinafter cited as Sprunt, Chronicles of the Cape Fear River.


Fig. 1. The Wilmington Vicinity. Sprunt, Chronicles of the Cape Fear River, 171.
Wilmington's importance to the Confederacy developed after Bermuda and Nassau became the major shipping points for blockade goods. Only 570 miles from Nassau and 671/4 miles from Bermuda, Wilmington would surpass in importance every city in the South with the exception of Richmond, Virginia. Both Mobile and Wilmington were strategically important and should have received higher priorities for capture during the war. But Charleston, the city of secession, had a special emotional significance, whereas Wilmington and Mobile, both major ports of entry for blockade-runners, were not well known to the northern people.

A key to the Confederate success in blockade-running were the forts and lesser works guarding the approaches to the Cape Fear. There were numerous forts and batteries strewn along the Cape Fear, of which five were more important than the others. Fort Anderson guarded one mouth of the river and lay almost across the river from Fort Fisher. Fort Johnson guarded the anchorages of the blockade-runners, and Fort Holmes occupied a position on the western corner of Smith's Island. (See Figure 3.)

The two largest and more important forts, Fisher and Caswell, both played leading roles in the defense of the Inlets. Fort Caswell occupied the short peninsula that jutted out towards Smith's Island,

Strategic Place of Railroads in the Civil War (New York, 1953), 264, hereinafter cited as Turner, Victory Rode the Rails.

79Barrett, The Civil War in North Carolina, 244-245; Johns, "Wilmington During the Blockade," 497.

80John Niven, Gideon Welles: Lincoln's Secretary of the Navy (New York, 1971), 1424, hereinafter cited as Niven, Gideon Welles.

81Beeker, Wilmington During the Civil War, 114-115.
guarding the Western Bar entrance to the Cape Fear River. Caswell, an old masonry fort, had been captured by Confederate militia from Wilmington on April 14, 1861. There were initially only two 24-pound guns mounted in the fort; both carriages were too decayed to withstand their own recoil. The Confederates brought in new armament, and by the war's end, Fort Caswell had been converted into a very strong casemated work. 82

The key to the defenses, Fort Fisher, had not existed at the war's outset. Soon after the capture of Fort Caswell, men were sent to Federal Point, and the first defensive works were started. By July, 1862, the fort had grown into a small work of about one hundred yards, constructed of sandbags. The armament consisted of a half dozen large guns, but only two 8-inch columbiads were suited for seacoast defense. At Federal Point there were seventeen guns altogether. Captain Hobart-Hampton Roberts of blockade-running fame, commented on the weakness of Fort Fisher early in the war: "I fancy the bold front so long shown by its occupiers had much to do with the fact that such an attack was not attempted until just before the close of the war." 83

By 1864, Fort Fisher had become a work of tremendous size and strength. Federal engineers styled it the "Malakoff of the South."

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82Sprunt, Chronicles of the Cape Fear River, 276-280; Louis T. Moore, "The Capture of Fort Caswell," The State, XII (September, 1944), 6-7, hereinafter cited as Moore, "The Capture of Fort Caswell."

83Sprunt, Chronicles of the Cape Fear River, 381; William Lamb, Colonel Lamb's Story of Fort Fisher (Carolina Beach, N. C., 1966), 1-2, hereinafter cited as Lamb, Lamb's Story of Fort Fisher; Roberts (Charles Augustus, Hobart-Hampton), Never Caught, Personal Adventures Connected With Twelve Successful Trips in Blockade-Running During the American Civil War (Carolina Beach, N. C., 1967), 14, hereinafter cited as Roberts, Never Caught.
The fort appeared like an inverted L with the base towards the land side. The land face, about 682 yards long, mounted twenty of the heaviest type seacoast guns. The sea face, 1,898 yards long, mounted twenty-four equally heavy guns including a 130-pound Armstrong rifle and a 170 Blakely, both imported from England. Both faces stretched about a mile and a half. The land face commenced about one hundred feet from the river, the parapets were twenty feet high at an angle of forty-five degrees, sodded with marsh grass. The parapets were not less than twenty-five feet thick, the guns being mounted in barbette. Between the guns were heavy traverses extending twelve feet high to protect the guns and crews from enfilading fire. On the land face the Confederates had placed a system of subterranean torpedoes to check on-coming infantry. At the very end of the sea face stood the mound battery, sixty feet high. This battery mounted two heavy guns which could produce a plunging fire onto vessels in the channel. Battery Buchanan sat behind the works on the river, a citadel to which an overpowered garrison might retreat, and with proper transportation be carried out of danger. Outside the land face, beyond the torpedoes existed a palisade fence of sharpened logs pierced for musketry. 84
(See Figure 4.)

These forts proved valuable to blockade-runners coming into Wilmington. They kept the blockading vessels at a distance, making them less effective, and gave covering fire and sanctuary under the fort's guns. One blockade-running captain said: "So long as batteries

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84 Lamb, Lamb's Story of Fort Fisher, 2-5; Sprunt, Chronicles of the Cape Fear River, 381.
Plan of Fort Fisher

1 inch = 210 yards

Fig. 4. Reed, Combined Operations.
at the entrance of the port blockaded keep ships at a respectable distance, the blockade will be broken."85

The Confederacy, perhaps more than the Union, realized the importance of Wilmington early in the war. Colonel William H. C. Whiting pointed out to Confederate Secretary of War George W. Randolph that the salt works producing three thousand bushels a day, communication, and the railroads in the area all made Wilmington important. Brigadier General Joseph R. Anderson said: "I know of no point the seizure of which would give them [the Union] so great [an] advantage."86

Whiting realized the weakness of the forts guarding the inlets, commenting that they both could be attacked by land or sea, and that "the fall of one, though so far apart will necessarily result in that of the other, and thus without mutually assisting in the defense of either, the safety of either of these important positions depends on the other."87

Flag Officers Stringham and Goldsborough both failed to recognize the strategic importance of Wilmington. The same attacking force that was used against Roanoke Island could have been utilized against Wilmington early in the war, before Fort Fisher had grown to such an

85 Roberts, Never Caught, 52.


87 William H. C. Whiting to George Randolph, November 14, 1862, ORN I, VIII, 846-847.
awesome size. The Union, however, could not afford early in the war the force necessary to capture and hold Wilmington.

Rear Admiral Lee realized the importance of Wilmington. He also realized that this port could not be blockaded with the vessels under his command. Lee was also astute enough to realize that Wilmington could only be captured by a joint army and navy operation. The forts at the entrances of the Cape Fear increased in size during the entire war, as did the Union's problems with the blockade. The Navy Department found out that to maintain vessels off Wilmington would be a larger problem than they had foreseen because of the logistical requirements of a steam blockade.
THE WOES OF NAVAL CONSTRUCTION AND REPAIR

The Civil War began a new era in warfare with the extensive use of steam powered warships. The blockade, especially at Wilmington, proved to be a test of the use of steam vessels for war purposes, and the theory of blockade by these vessels. Gideon Welles remarked: "Steam has become such an indispensable element in naval warfare, that vessels propelled by sails only are considered useless for war purposes."¹ Steam vessels had never before been maintained on their stations for such long periods of time. Confederate ironclads were considered a threat; thus, it became necessary to procure vessels that could hold these in check as well as keep the blockade-runners from their trade. The blockading vessels therefore needed a combination of speed and power to an "extent never before displayed in naval warfare."²

At the beginning of the war few naval officers had any idea of the number of vessels that would be required to blockade the vast southern coastline or the magnitude of such an undertaking. The Navy Department selected several prominent individuals, mostly shipping merchants in New York, and consulted with them as an informal board of advisors with regard to the purchasing and fitting out of vessels. After twenty vessels had been procured, one of the most eminent advisors gave the

¹West, Gideon Welles, 185.

opinion that it would require only "thirty more sailing vessels to complete the blockade"; in reality at the war's end there were more than six hundred vessels, most of which were powered by steam. 3

During the early months of the war the blockade at Wilmington suffered because the Navy Department was not able to procure enough vessels to blockade effectively the southern coast. The navy purchased virtually every available merchant steamer in the northern ports that could be advantageously converted into a naval vessel and used on the blockade. This was necessary because of the limited capacity of available shipyards for naval construction. This problem caused the department to purchase ships unfit for blockading duty. During the summer of 1861 Gideon Welles appointed a board of officers to look over the vessels that were recommended by the civilian consultants. The best location for finding vessels was New York. 4

The first twenty steamers that were purchased and chartered were capable of mounting naval guns and could be used to transfer troops and supplies. These vessels were of various types, from screw propeller steamers to ferry boats. The latter, in fact, made excellent blockading vessels, being able to withstand a lot of service and carry heavy naval ordnance. The largest vessels were about 2,000 tons, but the majority were between 100-800 tons. By December, 1861, the department had

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3 Charles Brandon Boynton, _The History of the Navy During the Rebellion_ (New York, 1867), 89, hereinafter cited as Boynton, _The History of the Navy_.

4 Charles Oscar Paullin, _Paullin's History of Naval Administration 1775-1911_ (Annapolis, 1963), 200-281, hereinafter cited as Paullin, _Naval Administration_.
purchased 79 steamers and 58 sailing vessels, and by the end of the war the Navy Department had purchased a total of 418 vessels, of which 313 were steamers.5

The acquisition of these vessels involved a very large and important responsibility. At first they were purchased for the department by individual naval officers or directly by the Secretary of the Navy. The majority of the purchases, however, were usually made by a board of officers. The traditional methods of purchase before the war had been by the commandants of navy yards, naval constructors, and ordnance officers. These men would advertise for bids, inspect the vessels and bargain for a charter or for its purchase. Problems arose from this particular system because of the large scale of operations. Welles stated:

Boards of officers, acting in a mere mercantile capacity, new to them, and for which they had neither been practically trained, or professionally commissioned, would be subjected to great embarrassment and disadvantage in their dealings with sellers of ships and professional ship brokers, in a market suddenly pressed by a heavy and premonitory demand.6

The owners of a vessel for sale, having learned their vessel had been surveyed, would set a price well above its true worth.7

The early purchasing system proved to be inefficient in its methods of purchase and its overall organization. Upon the advise of

5RSN 1861, 14-15; West, Lincoln's Navy, 47; Soley, The Blockade and the Cruisers, 17-13; Frank M. Bennett, The Steam Navy of the United States (Westport, Conn., 1972), 217, hereinafter cited as Bennett, The Steam Navy.


7Herald (New York), August 12, 1861.
his brother-in-law, George D. Morgan, Welles investigated the purchasing system and found it extremely inadequate and grossly fraudulent.\(^8\)

Welles believed that the navy needed a competent civilian in New York who could act as a proxy or commercial agent for purchasing vessels. Welles needed someone that he could trust implicitly. The only New York merchant that Welles knew was George D. Morgan, his brother-in-law. Welles chose him and not surprisingly received severe criticism for his "nepotism."\(^9\)

The new system worked more efficiently and saved substantial sums of money. Instead of inviting proposals, receiving sealed bids, and awarding contracts to the lowest bidder, the navy used its commercial agent who could bargain more effectively. Morgan acted as the navy's sole agent in New York, eliminating the possibility of competition among agents. In six months the worth of the system was revealed by the savings. The government purchased ninety-one ships for $3,500,000 at a savings of about $1,000,000 from the price asked and the price paid by the Navy Department.\(^10\)

The purchase of vessels greatly strengthened the navy, but did not enable it to obtain enough vessels requisite for a blockade of the magnitude it faced. The inadequacy of this method of obtaining vessels was quite evident on the blockade of the port of Wilmington. It took the

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\(^8\)West, "The Morgan Purchases," 74.

\(^9\)West, "The Morgan Purchases," 75.

\(^10\)West, "The Morgan Purchases," 75-76.
department three months to acquire enough vessels to be able to release just one for use in the blockade of Wilmington.

Construction of seven sloops-of-war was authorized just before the war, but this number was increased to eight in order to assign two vessels to each navy yard. In order to speed up construction, four of the vessels (the Oneida, Kearsarge, Wachusett, and the Tuscarora) were reproductions of sloops built in 1858. Later that year the Navy Department authorized construction of six more vessels along the same lines, but slightly larger.\footnote{11}

These vessels were later supplemented by the construction of specially designed naval vessels more suitable for blockade duty. The department contracted with private shipyards to build twenty-three heavily armed screw gunboats of shallow draft. The draft was important, for most of the armed vessels of larger size were too deep drafted to render a close blockade in the shallow waters along the southern coast. These twenty-three vessels were wooden, of approximately five hundred tons. These vessels became known as the ninety-day fleet because some of the vessels were in commission within three months from the signing of the contract. The Unadilla and Pinola can be regarded as vessels of this type.\footnote{12}

By December, 1861, the navy, near its maximum strength, consisted of 671 vessels totaling 510,396 tons and armed with 4610 guns. Of these

\footnote{11}Soley, The Blockade and the Cruisers, 18.

vessels 179 had been built and 492 had been purchased or transferred from other departments. The Navy Department purchased 313 steamers costing $1,800,000, and all the 179 vessels built were steam vessels. Fifty-five of these vessels were constructed in the navy yards and 124 were contracted, with prices ranging from $75,000 to $650,000. The price of purchased vessels ran somewhat less, usually from $10,000 to $60,000.13

There were many vessels constructed during the war, but the scanty resources of the navy yards were totally inadequate to meet the demands of the department. In order to provide enough vessels for the blockade, the yards stayed crowded with work during the entire war. There were not enough skilled laborers to meet the work demand. This forced naval officers to direct personally the artisans at their work. In order to speed construction and to supplement the eight naval yards, Welles placed the private shipyards and foundries under blanket contracts, hired thousands of civilian artisans and mechanics, and kept men and machines working day and night. The number of civilian workers employed in these yards expanded from 3,844 to 16,880. Private contractors were not prepared for the large number of orders which were suddenly thrust upon them. The quality of the contractors' work inevitably deteriorated as they tried to complete their work while inflation threatened to wipe-out their profits.14

13Paulin, Naval Administration, 280; RSN 1864, XXII-XXIV; Report of the Secretary of the Navy 1865, 39th Congress, 1st session, House Executive Document 1, XII-XIII, hereinafter cited as RSN 1865.

14Waite, "Blockade of the Confederacy," 915; Stivers, Privateers and Volunteers, 197-198; RSN 1865, XIII; William Edward Sloan, Benjamin Franklin Isherwood, Naval Engineer, the Years as Engineer in Chief
New York became the center for naval construction. Of 199 vessels built during the war, one fourth of the hulls and one third of the engines were manufactured in New York. The city played an essential role in winning the war by providing 22 of the 28 steamers over one thousand tons purchased for the navy, and 111 of the 257 small steamers.\(^{15}\)

In evaluating the vessels built by the United States during the war, the navy did not develop a single efficient blockading vessel. The navy had its greatest success adapting ships that had been built for other purposes. Of these, the coastal steamers and the captured blockade-runners made the most successful vessels because of their speed. Even these vessels, however, had problems that rendered them at times inefficient.\(^{16}\)

Captured blockade-runners were in constant demand for duty off Wilmington. Obtaining them, however, proved to be a problem. Rear Admiral Lee sent some of his ablest officers north to speed up the condemnation and refitting of the blockade-runners. These prizes, he wrote, "could have been discharged, condemned, turned over to the navy and refitted, amply fitted, all in one week or ten days at farthest." Fox disagreed with Lee on this point and ordered the officers sent

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\(^{15}\) Robert Greenhalgh Albion and Jeenie Barnes Pope, Sea Lanes in Wartime: The American Experience (New York, 1942), 150, hereinafter cited as Albion and Pope, Sea Lanes in Wartime; Paullin, Naval Administration, 293.

\(^{16}\) Hayes, Du Pont, II, 279n.
north by Lee back to the squadron, claiming that the prizes could not be used in "under two or three months."\textsuperscript{17}

The United States Navy during the war only built or contracted for steam vessels. The transition from sail to steam presented problems that the Navy Department had never before faced. The nature of the blockade service subjected the vessels and their machinery to stress not usually encountered in sailing warships. The blockade service required vessels to remain at their stations, exposed to all weathers and elements for long periods of time. The hardships on the engines were compounded by the necessity to keep the vessels under steam, or their fires banked at all times in order to be ready to chase a possible blockade violator.

The necessity for frequent repairs to blockading vessels was perhaps one of the greatest handicaps to the Wilmington blockade. All vessels had to be withdrawn from their stations at one time or another for repairs or refitting. Steamers which were seriously damaged or needed extensive repairs might take weeks or months to repair. The navy started off on the wrong foot at the start of the war. Before the war, Secretary of the Navy Isaac Toucey failed to keep the navy in a fighting condition. He had only routine repairs made and turned the bulk of the work over to his successor.\textsuperscript{18}

It was not uncommon for vessels needing repairs to be on their stations for long periods of time. The Wilmington blockade usually had

\textsuperscript{17}Samuel P. Lee to James Rood Dolittle, February 20, 1865, "Letter of Admiral Lee," Southern History Association, IX (March, 1905), 116, hereinafter cited as "Letter of Admiral Lee."

\textsuperscript{18}Paullin, Naval Administration, 216-217.
several that were unfit for duty. The senior officers in command of the
warships off the Cape Fear were authorized to send their vessels to
Newport News only for repairs that could be done in less than two days,
less time than it took to coal in Beaufort. The Navy Department re-
quired that vessels could leave for repairs only if their absence did
not weaken the blockade. Gideon Welles tried to develop and maintain
a blockade strategy of retaining or keeping a large number of steam
vessels, fast enough to catch all but the fastest blockade-runners,
on their stations without breakdowns, for as long as possible.19

The breakdown of vessels machinery, especially the boilers was by
far the most common source of complaint. Converted commercial vessels
gave more problems generally because their engines were usually more
exposed subjecting them to both the weather and the enemy's gunfire.
In many cases ships' commanding officers were unaccustomed to steam
vessels, leaving them at times confused as to what to do in emergencies.
Early in the conflict officers frequently were more anxious about their
boilers exploding than worried about the enemy.20

Most of the blockading vessels stationed off Wilmington were built
with their boilers above the waterline and occasionally in full view.
This created a potentially dangerous situation. If an enemy projectile
were to hit the boilers, it would send hot water all over the deck,
scalding and perhaps killing crew members. The Florida's exposed steam

19 Samuel Lee to Commanding Officers, December 16, 1863, OR I, IX,
355-358; Sloan, Isherwood, 27.

20 Daniel Ammen, The Navy in the Civil War: The Atlantic Coast
(New York, 1898), 9, hereinafter cited as Ammen, The Atlantic Coast;
drum was remedied by protecting it from shot and shell with approximately four hundred sandbags. These exposed boilers also made some ships less seaworthy because their weight high in the vessel effected their center of gravity. Sometimes it became necessary to carry ballast.  

The probable cause for the unusual amount of trouble with the boilers came from neglect by the ships' engineers. Engineers and firemen of blockading vessels and blockade-runners frequently threw grease, tar, pork or anything that would burn quickly into their furnaces in order to raise the steam pressure in a chase or to escape. These items when burned would leave a residue in the ship's machinery. Salt and scale often built up to such an extent that it would also cause injury to the ship's machinery. The boilers of the Mercedita, and the State of Georgia, upon their arrival at the navy yard in Philadelphia, were examined and found to have been grossly abused. The State of Georgia reported having her "oil holes and channels in the brasses clogged up with hard dirt--the condenser nearly filled with tallow--and a thickness of five inches of tallow and dirt was found in the air pump." This caused Gideon Welles to warn against this practice. He dismissed both engineers with the warning that no

other vessel must be discovered in this condition, with the same
penalties existing for all other engineers.\footnote{22}

Commercial vessels fitted for war were constant problems to their
commanders during the conflict. Merchant vessels were not built to
carry the heavy ordnance required on vessels of war. The Penguin had
very light upper deck works that were only intended to protect cargo
from the rain. The addition of heavy ordnance made the deck "leaky
and insecure," liable to be swept away in a gale.\footnote{23} The Maratanka,
although not a commercial vessel, carried a battery not suited for a
vessel of her type. Her eleven-inch gun, mounted in the extreme after
section of the vessel, was located at a point where the beam of the
vessel decreased from twenty-one feet to fourteen feet, eight inches.
The carriage, ten feet seven inches long did not leave enough room to
work the gun with a crew of twenty-five men. This heavy battery pro-
duced a dangerous situation in heavy weather, causing the vessel to be
topheavy and in danger of swamping.\footnote{24}

The extra heavy battery carried by the Maratanka caused her to
develop a leak from the strain, which lowered the vessel's efficiency.

\begin{itemize}
\item \footnote{22} General Order No. 19 by Gideon Welles, Secretary of the Navy,
September 16, 1863, John M. B. Clitz Collection, Naval Records Col-
lection of the Office of Naval Records and Library, Record Group 45,
Entry 345, National Archives, Washington, D. C., hereinafter cited as
Clitz Collection, R.G. 45, N.A.
\item \footnote{23} John W. Livingston to Silas H. Stringham, August 16, 1861,
ORN I, VI, 86-87.
\item \footnote{24} Gustavus Scott to John Dahlgren, October 31, 1862, Lee Collection,
L.C.M.; Benjamin Sands to Samuel Lee, February 10, 1863, ORN I, VIII,
518-519.
\end{itemize}
with 140 tons of coal on board it took eighteen hours to steam from Beaufort to Frying Pan Shoals, only eighty-five miles distant.\textsuperscript{25}

On occasion vessels were taken off other blockade points along the coast and sent to Wilmington. Often these vessels were not specifically suited for the Cape Fear blockade and had to be altered. The vessels off Wilmington required more speed rather than heavy batteries. On the other hand, areas such as the sounds of North Carolina and the James River in Virginia required vessels with more firepower. When the \textit{Miami} was assigned to the Wilmington blockade, Rear Admiral Lee suggested that she leave two of her nine-inch guns for the vessels in the sounds. The \textit{Keystone State} found it necessary to remove sixteen iron water tanks from her hold in order to increase her speed. Other vessels were handicapped by the need of extra weight for ballast; for example the \textit{Buckingham} carried 125 tons of pig iron.\textsuperscript{26}

Henry Wise, the commander of the \textit{Kansas}, complained that when his vessel encountered heavy weather she leaked twenty-six inches in four hours. The \textit{Kansas}'s comparatively light frame was strained by the heavy 150-pound gun that she carried. Wise wanted to trade his 150-pound gun for a 100-pounder because it caused the vessel to roll excessively in even mild weather, and the gun itself could seldom be cast loose.\textsuperscript{27}

\begin{flushright}
\textsuperscript{25}Gustavus Scott to Charles S. Boggs, May 1, 1863, \textit{ORN I}, VIII, 835.

\textsuperscript{26}Samuel Lee to Robert Townsend, December 14, 1862, \textit{ORN I}, VIII, 299; Pierce Crosby to Samuel Lee, April 21, 1864, \textit{ORN I}, IX, 667; William G. Saltonstall to James Frailey, February 3, 1864, Lee Collection, L.C.M.

\textsuperscript{27}Samuel Lee to Henry Wise, August 5, 1864, Lee Collection, L.C.M.
\end{flushright}
The Penobscot had major problems that were not attended to; leaving the crew to live not only dangerously but miserably. The vessel carried insufficient armament, a disabled eleven-inch Dahlgren gun which could not be repaired until the gun was removed from the carriage. The decks leaked so badly that the men could not sleep in their hammocks in rainy weather, and water often stood an inch or more on the berth deck. In scrubbing the decks, sand from the holy stone went through the seams. The ship's galley had at that time been condemned for three months making it nearly impossible to do the ship's cooking. One of the ship's heads had been carried away in a collision with the Genesee which left insufficient accommodations for the men. 28

The inefficiency of these vessels was a major reason why blockade-runners escaped. The vessels were not only handicapped in their pursuing abilities, but were at times in such condition that they had to be towed to port by other vessels. They were frequently helpless in heavy gales owing to the condition of their boilers, machinery, and ground tackle. Vessels were of little use on blockade service unless they were fast, efficient, and in good order, and this was particularly true off Wilmington. In July, 1863, Captain Charles S. Boggs, the senior officer at Western Bar, complained to Rear Admiral Lee that all the vessels stationed there were "cripples." 29

Natural processes also kept the vessels in want of repair. Fouling of the ship's bottom was an ever present concern. Barnacles and plant


growth inhibited the ship's movement in the water, cutting down its speed. Every contrivance to keep the growth off their ships was tried by the officers. They had scrapers which removed this growth as far as they could reach while afloat. But to thoroughly clean the bottom, the ship had to be docked and removed from the water. Vessels in repair facilities usually received routine maintenance. The vessel was taken out of the water, cleaned and coated with zinc paint which proved very successful in protecting the ship's bottom from fouling. However, Rear Admiral David D. Porter would not allow a vessel to go north to have its bottom cleaned unless the vessel made under thirteen knots.30

Another one of nature's processes caused the Monticello to need a new rudder and propeller. Galvanic action between these two, and the ship's coppered bottom had caused the iron propeller to become as soft as lead, and the rudder to be eaten away.31

Complaints from the commanders at Wilmington prompted Rear Admiral Lee to order William Dungan, the Chief Engineer aboard the Minnesota, to examine the machinery on the vessels on that station. In April, 1863, upon examining the vessels, Dungan found that they were not, in his opinion, in the condition represented by their commanders. He thought that with better care the machinery would be more efficient. Captain Charles Boggs of the Sacramento disagreed. Boggs thought Dungan's

30 Sam Huse to Samuel Lee, February 1, 1864, Lee Collection, L.C.M.; Samuel Lee to Gideon Welles, October 8, 1862, GBN I, VIII, 123-124; General order No. 21 by David D. Porter, Commander of the North Atlantic Blockading Squadron, October 25, 1864, Clitz Collection, R.G. 45, N.A.

31 Daniel Braine to Louis Goldsborough, September 8, 1863, Lee Collection, L.C.M.
observations were incompetently tendered. He stated: "I have made steam a study, and assert that I am a better judge of the conditions of engines and boilers under my eye than any engineer can be hundreds of miles distant."32

In order to quell the controversy and alleviate the situation, Flag Officer Lee sent Benjamin F. Garvin, the fleet engineer, and a skilled boilermaker to Wilmington to examine the vessels. Garvin's duties at Wilmington included examining the fleet's condition, noting changes that might be necessary to increase the efficiency of the squadron, determining if any vacancies existed in the engineering departments, recommending those who should be advanced, acquainting himself with Beaufort and New Bern in regards to engineer's supplies and coal and recording any changes that should be made.33

Vessels were often sent to the blockade without their machinery being in top running condition. According to Flag Officer Goldsborough the Chippewa was a "most prolific source of complaint ever since she first joined the squadron."34 Many vessels stayed in this condition because repairs were nearly impossible at sea. Incidental repairs were hard to make because the engines remained constantly in motion. Repairs were more lengthy when vessels had to remain on station for long periods of time before returning to the conveniences of a workshop. Vessels

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32 Benjamin Sands to Samuel Lee, March 13, 1863, ORN I, VIII, 600; William Dungan to Charles S. Boggs, April 30, 1863, ORN I, VIII, 833; Charles S. Boggs to Samuel Lee, May 23, 1863, ORN I, IX, 42.

33 Samuel Lee to Benjamin Garvin, July 8, 1863, ORN I, IX, 118.

34 Louis Goldsborough to Gideon Welles, August 9, 1862, ORN I, VII, 637.
frequently returned from the northern dockyards in such poor condition that Rear Admiral Goldsborough decided to use the Brandywine at Hampton Roads not only for a storehulk but also as a repair ship where a compliment of carpenters, sailmakers, as well as spare parts were kept. 35

The commander of the Connecticut, John J. Almy, complained of the failure of the Bureau of Construction and Repairs to approve requisitions for badly needed articles. The bureau many times did not fill the requisitions that were necessary to put and keep the steamers of the squadron in good working order. Many vessels as soon as they got on their stations needed repairs. The Emma did not have the tools to scale her boilers, having been sent away from the navy yard without them and not being able to procure any. Almy commented: "A good supply of miscellaneous engineers tools are required to be kept at this place at all times. It would in the end add much to economy and efficiency." 36

The tremendous increase in the navy's steam fleet during the war caused numerous problems, the least of which was finding qualified personnel to handle the maintenance of the steam machinery in the vessels. A great number of young men ultimately became the major

35William M. Roads to John Clitz, November 15, 1862, Lee Collection, L.C.M.; Louis Goldsborough to Gustavus Fox, November 9, 1861, Robert Means Thompson and Richard Wainwright (eds.), Confidential Correspondence of Gustavus Vasa Fox Assistant Secretary of the Navy 1861-1865 (New York, 1913), I, 205, hereinafter cited as Thompson and Wainwright, Fox Correspondence.

36Daniel Braine to Samuel Lee, October 28, 1862, Lee Collection, L.C.M.; John S. Almy to Samuel Lee, February 12, 1864, Lee Collection, L.C.M.
contribution, rather than skill. There were too many applicants and no school existed to teach them, thus making it necessary for the recruits to learn by experience.\textsuperscript{37}

It was not a simple matter for vessels to be repaired. Vessels, before being allowed to go north for repairs, had to be surveyed. A survey consisted of one sea officer and at least two engineers who were to report in writing "the nature and extent of the accident or derangement, the cause thereof, the probable time of repair, and whom, if any blame in connexion [sic] therewith is to be attributed."\textsuperscript{38}

After a survey was performed the vessels at Wilmington usually had to wait for other vessels to return to their stations from repairs, so that the inlets would not be weakened by their absence. Vessels going for repairs were usually given a specific amount of time to have their repairs made; those which were detained longer had to account for their delay. Rear Admiral Porter felt that "unless broken down entirely, the officers sent away will exercise no judgement of their own if staying away on account of repairs."\textsuperscript{39}

A vessel arriving at a northern yard usually had to wait to be repaired. At times vessels from Wilmington were given preference over others from areas less important. Some vessels went north requiring several different things to be done, but red tape and bureaucracy

\textsuperscript{37} Sloan, Isherwood, 33.

\textsuperscript{38} General order of Secretary of the Navy Gideon Welles, January 29, 1862, Clitz Collection, R.C. 45, N.A.

\textsuperscript{39} Samuel Lee to Gideon Welles, March 3, 1863, ORN I, VIII, 583-584; Samuel Lee to commanding officers, September 1, 1863, ORN I, IX, 188; General order No. 58 by David D. Porter, Commander of the North Atlantic Blockading Squadron, November 24, 1864, Clitz Collection, N.A.
entangled the most simple processes. If a repair did not have the
approval of the fleet engineer and the admiral, the work would not
be executed by the yard. 40

Delays permeated the whole system caused by the public yards' and
shops' inability to execute the work they were assigned. The United
States Navy relied very heavily on private industry for much of its
repair work. The navy's limited facilities made the repairs lengthy.

Gideon Welles commented:

Our navy yards are, all of them, of limited area,
and wholly insufficient for our present Navy. Not
one of them presents the full requisite conveniences
and facilities for promptly fitting out in rapid
and efficient manner more than a single vessel at a
time. Vessels which ought to be repaired in three
months are often detained for a year. 41

Welles also complained that the navy yards had an "undoubtedly defective
administration . . . and a want of proper responsibility prevades the
whole system." He blamed this on the political partisans who "crowded"
the yards and were not skillful mechanics. 42

Repairs were further hampered by the poor conditions of the few
existing workshops. Early in the war there were about two dozen
machine shops; but many were small, lacking adequate tools and workmen

40 Samuel Lee to Gideon Welles, March 3, 1863, ORN I, VIII, 584; Gideon Welles to Samuel Lee, March 6, 1863, ORN I, VIII, 589; John Miller to Thomas Pickering, September 15, 1864, Lee Collection, L.C.M.

41 Report of the Secretary of the Navy, December 5, 1863, 39th Congress, 1st session, House Executive Document 1, XIV-XV, hereinafter cited as RSN 1863; RSN 1865, XVII.

42 RSN 1865, XVII.
with the skills to produce marine machinery. The best shops at that time did not exceed eight.\textsuperscript{43}

Timber to build and repair vessels was very scarce. Stockpiles had been diminished by the neglect of those responsible to keep a sufficient supply on hand. Therefore, little wood remained by which a new vessel could be constructed or repaired. Rear Admiral Lee authorized W. M. Whittemore of the Badger to buy wood at reasonable prices when needed, for the vessels off Wilmington. Wood could be purchased at Beaufort with much greater economy to the government than it could be bought and shipped there.\textsuperscript{44}

Supplies were purchased in two ways: in the open market or by contract, the latter being preferred. Shortages of supplies were not uncommon because of the "particular and novel character of the vessels, and the service on which they were engaged required many things that could not be foreseen in any contract."\textsuperscript{45} The government had to constantly keep its eyes open for those who tried to cheat by putting in "bids with the hope of substituting an inferior article to that shown as a sample."\textsuperscript{46}

Facilities for docking vessels for repair were totally inadequate. In all the naval yards there existed only one dry dock in each yard,

\textsuperscript{43}Boynton, The History of the Navy, 101.

\textsuperscript{44}Boynton, The History of the Navy, 101; Samuel Lee to W. M. Whittemore, October 22, 1862, Lee Collection, L.C.M.

\textsuperscript{45}John A. Lenthal to Gideon Welles, April 2, 1861, February 10, 1864, Letters to the Secretary of the Navy from the Bureau of Construction and Repair, Records of the Bureau of Ships, Record Group 19, Entry 49, National Archives, Washington, D. C., hereinafter cited as R.G. 19, Entry 49, N.A.

\textsuperscript{46}John A. Lenthal to Gideon Welles, February 10, 1864, R.G. 19, Entry 49, N.A.
three of which were made of wood, which were perishable and combustible. These docks were further made useless by their small size. Some were smaller than the new vessels being built. In order to repair the State of Georgia in Baltimore, the side wheels had to be removed, along with her ammunition and coal, to get her in the dry dock.  

Repairs kept many of the blockading vessels from their stations for long periods of time. Because of the lengthy time required for repairs in the northern ports, Beaufort, in spite of its extremely limited facilities, often handled fleet repairs rather than sending the vessels north. Commander John J. Almy of the Connecticut complained about the northern yards, as repairs could be done quicker at Beaufort than at Norfolk because of the numerous vessels at the latter port. He also claimed that the repair work at Norfolk was "executed in a very slow manner." Vessels frequently received minor repairs at Beaufort while coaling. These minor repairs would enable them to stay at their stations for short periods of time, enabling other vessels which were being repaired to replace them at a later date.

Vessels often waited at Beaufort for as long as two to three weeks for an engine part to arrive from a northern yard. The vessels could at times limp to a northern port or be towed which expedited matters

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48 William A. Parker to Samuel Lee, February 17, 1863, ORN I, VIII, 533; John J. Almy to Samuel Lee, February 25, 1864, Lee Collection, L.C.M.

49 Charles S. Boggs to Samuel Lee, May 28, 1863, ORN I, IX, 50-51; William H. Macombs to Samuel Lee, December 25, 1862, Lee Collection, L.C.M.
somewhat. Drawings were sent to the navy yards describing parts needed which proved to be a more expedient method used by the department. Also boilermakers and other artisans were sent from the sounds of North Carolina to do the work on the vessels at Wilmington rather than to take them from their station.50

During the war the Wilmington blockade suffered greatly because of a lack of vessels. Repairs kept from one third to two fifths of the vessels constantly away for repairs or coaling. At one time ten vessels from Wilmington were at northern yards undergoing repairs. Lee urged the department to repair the shops at Norfolk so that the vessels stationed at Wilmington would not have such great distances to go for repairs, thus cutting repair time.51 The problems of repair during the conflict were never solved and were only slightly improved after the navy established more repair facilities. But with the added facilities also came the addition of hundreds of vessels that kept the yards crowded. A secondary problem grew from the expanded number of vessels. Provisioning the squadron soon became a prime concern of the Navy Department.

50William Keeler to Anna Keeler, October 28, 1863, Daly, Aboard the U. S. S. Florida, 106-107; Charles Loring to Gustavus H. Scott, October 4, 1863, Lee Collection, L.C.M.

51Samuel Lee to Gideon Welles, February 23, 1864, ORN I, IX, 499-501; Samuel Lee to Gustavus Fox, October 20, 1863; Thompson and Wainwright, Fox Correspondence, II, 266; Samuel Lee to Gideon Welles, April 9, 1864, ORN I, IX, 591; Samuel Lee to Gideon Welles, January 20, 1864, Letters Received by the Secretary of the Navy from Captains 1805-1885, National Archives, Washington, D. C., reel number 174, hereinafter cited as Captains letters, N.A.
Logistics have always been major concerns in military affairs, including naval operations in the Civil War. In order to implement the blockade more quickly and efficiently, the Union found it necessary to furnish supplies, coal, and men to the blockading vessels on station. The Navy Department, burdened with the mammoth task of keeping the squadrons at their stations, had to supply in quantity and with regularity all the articles that would insure success.

The problems of supplies, especially perishable items, became a huge problem as the war evolved from an embryo stage into a large sprawling conflict. The work of purchasing and distributing food, supplies, and clothing which the squadrons needed fell to the Bureau of Provisions and Clothing, headed by Paymaster Horatio Bridge. His economical and efficient management was demonstrated throughout the war. For example, the annual "clothing fund" which before the war amounted to about $570,000, in 1864 became less than one fourth of this sum, while the number of men in the navy had increased sixfold and clothing prices had doubled.\(^1\)

Early in the war naval officials saw the necessity of securing logistical bases in southern waters for vessels, for refuge, "places of deposit for provisions and coal and secure retreats from distress

\(^1\) Paullin, Naval Administration, 291.
or for repair." Yet during 1861 the vessels stationed at Wilmington were logistic cripples; to obtain any supplies they had to go to Hampton Roads for fuel and provisions, leaving their posts unguarded.

One week after the surrender of Fort Macon on May 2, 1862, Flag Officer Louis M. Goldsborough ordered the first coal and provisions from Philadelphia to Beaufort, North Carolina, for the use of the vessels operating in the sounds and off Wilmington. However, ordnance stores still had to be obtained at Hampton Roads. Before this date all vessels had been going to Hampton Roads for their supplies; from this point on they would go to Hampton Roads only if ordered to do so, or if stores could not be obtained at Beaufort.3

Goldsborough put Commander Samuel Lockwood in charge of finding the most convenient and secure place in Beaufort to deposit the coal and stores, making sure to avoid demurrage, a charge added to the rental of the vessel per day while it lay loaded. A clerk accompanied the provisions and remained with them. His duties included tending to their delivery, collecting receipts, and making sure no one received an article unless they had a requisition duly approved by the senior naval officer present.4

The Gosport Navy Yard at Norfolk, Virginia, was fitted with an ample magazine, shell house, and other capacious facilities and served with great convenience for supply of the ships of the whole North

2Blockade Strategy Board Minutes, September 12, 1861, Subject File, Naval Records Collection of the Office of Naval Records and Library, Record Group 45, National Archives, Washington, D. C., hereinafter cited as Strategy Board Minutes, R.G. 45, N.A.


4Louis Goldsborough to Samuel Lockwood, May 2, 1862, ORN I, VII, 281.
Atlantic Blockading Squadron whereas the ordnance stores at Fortress Monroe were piled outdoors and exposed to the elements. Flag Officer Goldsborough wanted to move these stores to Norfolk, but General Wool who commanded the area would not permit it even though the stores were naval property. Wool was not satisfied with a directive from the Secretary of the Navy, but wanted an order from Lincoln or Stanton, the Union Secretary of War.5

Fortress Monroe acted as the general receiving depot for supplies under Flag Officer Goldsborough. These supplies were reshipped as required to Beaufort for the vessels off Wilmington. Rear Admiral Lee used the Brandywine, a ship of 1,708 tons, as the general receiving and supply vessel of the squadron. This vessel generally supplied the vessels stationed at Wilmington. The vessel carried two paymasters and five clerks who handled the squadron's transactions. The commanding officer of the Brandywine obtained the supplies from different naval agents, but mostly from the agent at Baltimore after they were approved by Rear Admiral Lee. Commander Benjamin J. Totten pointed out to Rear Admiral Samuel P. Lee that the supplies obtained from Baltimore cost considerably more than those obtained from other places in the North.6

The supply to the Brandywine, and then the squadron, involved two freights and two separate stowages. The navy shipped the cargo to Hampton Roads where it was stowed in the Brandywine, and as required, reshipped in small chartered vessels to Beaufort. The William Badger,

5Louis Goldsborough to Gustavus Fox, May 23, 1862, Thompson and Wainwright, *Fox Correspondence*, I, 276-277.

6Samuel Lee to Horatio Bridge, February 5, 1863, *ORN* I, XXVII, 479; *ORN* II, I, 47.
a 33½-ton vessel, arrived in Beaufort in the summer of 1862, replacing these chartered vessels that lay there collecting demurrage. The William Badger acted as the store vessel for the ships off Wilmington. The Wilmington vessels could obtain supplies from the William Badger while coaling. 7

Ordnance stores were received at Hampton Roads and were issued in the same manner except they were sent by the ordnance bureau to the naval ordnance depot at Old Point, Virginia. The officer in charge, on requisitions approved by the flag officer, issued and sent ordnance naval vessels as the opportunity arose, to New Bern, where they used a prize schooner for storage. Before the capture of New Bern, vessels were required to go north to Hampton Roads for their ordnance. 8

Until September, 1862, Flag Officer Louis Goldsborough used a system by which all requisitions for supplies were to be submitted to himself, and if approved, they were sent through the normal channels. His successor, Rear Admiral Lee, tried to initiate an ordering system by which the commanding officer of each vessel on the blockade of Wilmington would furnish the paymaster in charge of supplies at Beaufort and New Bern with estimates for his vessel's needs for the week and for the ensuing quarter, allowing for what his vessel had on hand. This system, by February, 1863, had become a failure "owing to the frequent change of vessels, the temporary absence of many of them for various

7Samuel Lee to Horatio Bridge, February 5, 1863, ORN I, XXVII, 479-
480; Louis Goldsborough to Samuel Lockwood, May 2, 1862, ORN I, VII, 281; Louis Goldsborough to Gideon Welles, July 13, 1862, ORN I, VII, 605.

8Samuel Lee To Horatio Bridge, February 5, 1863, ORN I, XXVII, 480.
causes, the duties of the blockade, so many new officers, and other deranging circumstances . . . ."9

Lee had hoped that until he had an adequate staff to implement his system each bureau chief would keep a sufficient amount of supplies at the points of issue to cover all contingencies. Lee stated: "Small requisitions at irregular intervals cannot be supplied from want of convenience"; therefore, captains were to draw upon old stock to prevent damage and loss.10

The government had problems acquiring a sufficient number of ships to carry supplies to Beaufort. Lee wanted to take three mortar vessels, the Arletta, Matthew Vassar, and William Bacon, that were used to blockade the small inlets adjacent to the entrances to Wilmington, and convert them in order to handle supplies. He wanted to make the Matthew Vassar a store schooner, one of the others an ordnance vessel, and the remaining ship a transport vessel. 11 Lee eventually used the William Bacon and Arletta for storage vessels. An inadequate number of supply vessels forced the United States government to hire private vessels at high rates.

Many of the government and private vessels were inadequate as support ships. The Brandywine did not function well as a store vessel

9Louis Goldsborough to Squadron, November 10, 1861, ORN I, VI, 419; Samuel Lee to Horatio Bridge, February 5, 1863, ORN I, XXVII, 480; Samuel Lee to W. M. Whittemore, September 27, 1862, Lee Collection, L.C.M.; Samuel Lee to Gustavus Scott, September 27, 1862, Lee Collection, L.C.M.

10Samuel Lee to Horatio Bridge, February 5, 1863, ORN I, XXVII, 480; Samuel Lee to W. M. Whittemore, September 27, 1862, Lee Collection, L.C.M.

11Samuel Lee to Horatio Bridge, February 5, 1863, ORN I, XXVII, 480.
because of her excess wetness. This was especially true for stores such as bread. The paymaster of the Brandywine complained that "all the bread and other stores sent to the Brandywine will be doubtless ruined on account of said wetness."\textsuperscript{12} For some unexplained reason Lee disapproved of storing bread in a warehouse on land. At Beaufort they attempted to keep bread and other stores on the William Badger, drawing stores from vessels under demurrage first or taking on board the William Badger all the stores that it could hold.\textsuperscript{13}

By March, 1863, Lee's supply system was implemented fully. The vessels stationed off Wilmington would make "timely requisitions for the forthcoming quarter for all their wants in all departments of the vessels on the storekeeper at Beaufort."\textsuperscript{14} These requests would be examined and approved by the senior officer off Western Bar or New Inlet, depending from which side of the shoals the vessel came. The requisitions were then sent to the William Badger's paymaster who compared the requested items with those on hand, making for Lee's approval triplicate requisitions for the deficiencies. After Lee's approval, the requisitions were sent to the bureaus who in turn sent the necessary supplies. Duplicate returns were then sent in by the paymaster showing what he had on hand, what was required, and what was deficient. The requisitions "must show at what times and in what quantities the supplies must be certainly delivered," and the respective senior officers and storekeeper paymaster were "responsible for any want of

\textsuperscript{12}Samuel Lee to Dawson Phenix, September 4, 1862, Lee Collection, L.C.M.

\textsuperscript{13}Samuel Lee to W. M. Whittemore, September 13, 1862, Lee Collection, L.C.M.

\textsuperscript{14}Samuel Lee to Rufus C. Spalding, March 15, 1863, ORN I, VIII, 611-612.
supplies which may occur, which they have ample authority and
opportunity to prevent."15

When Rear Admiral David D. Porter took command of the squadron in
1864, he created a new supply system, trying to substitute simplicity
for much of the red tape. Senior officers no longer had to send the
reports approving requisitions. From thence forth all requisitions
could be handled by the officer in charge at Beaufort. Monthly reports
showing expenditures in stores and other various departments were no
longer necessary, but were kept by the commanding officer and were
either turned in at the expiration of the cruise or turned over to his
successor.16

Early in the war the Navy Department made plans to obtain different
types of vessels needed for supply purposes. On June 25, 1861, the
"Board of Bureau Chiefs" passed unanimously a plan for purchasing side-
wheel vessels armed with two guns for the sole purpose of carrying
provisions. These vessels were an important auxiliary to the blockade
because they enabled the warships to obtain fresh food more often, and
also helped the vessels to remain longer at their stations. Inaugurated
by the Bureau of Provisions and Clothing, this system provided large
fast steamers that were fitted with capacious ice houses, some of which
would hold fifty thousand pounds of fresh beef, and three hundred tons
or more of ice.17


16David D. Porter, Commander of the North Atlantic Blockading
Squadron, General Order No. 42, November 10, 1864, Clitz Collection,

17Minutes of the Board of Bureau Chiefs, June 5, 1861, Subject File,
Mobilization and Demobilization, Naval Records Collection of the Office
of Naval Records and Library, Record Group 45, National Archives,
Washington, D. C., hereinafter cited as Minutes of the Board of Bureau
Chiefs, R.G. 45, N.A.; Boynton, The History of the Navy, 82.
The employment in the navy of regular lines of supply steamers with chill rooms aboard was a completely novel undertaking. The first step taken to provide vessels at Wilmington with fresh provisions came on July 19, 1861, by order of Secretary Gideon Welles to Horatio Bridge:

You will proceed to New York and take requisite means for placing on board the steamer Rhode Island fresh beef, vegetables and other supplies necessary for crews of blockading vessels south of Cape Hatteras. Your arrangements will be made with reference to supplying all the vessels with fresh beef and vegetables on the outward trip of the Rhode Island, and on returning. 18

In the fall of 1861, the Navy Department experimented with a new method of preserving beef aboard one of the new fast steamers, the U.S.S. Connecticut. The usual method of preservation consisted of alternating a layer of ice and a layer of meat. The new method consisted of a "chill room," something in the style of a refrigerator on shore. The Connecticut had four hundred quarters of beef hung on hooks and stowed together as close as possible. There were fifty-nine thousand pounds of beef with 125 tons of ice, about a four to one ratio of ice to beef. 19

Each blockading vessel had on board an ice chest which could preserve the meats and vegetables received from these supply vessels. The system did not work well. Commander Maxwell Woodhull of the Connecticut commented on the experiment, "I hope the proof of its insufficiency is now too completely tested to continue it longer in

18 Paullin, Naval Administration, 291-292.
19 Maxwell Woodhull to Gideon Welles, October 4, 1861, CRN I, XXVII, 367-368.
this vessel." He thought that these vessels should carry more ice, and between 35,000 and 45,000 pounds of beef in the future.  

Woodhull's suggestions were apparently accepted for the vessels carried each trip between 25,000 and 35,000 pounds of fresh beef and between 600 to 700 barrels of fresh vegetables. The vessels were loaded in New York, Boston, and Philadelphia. Not only did they perform the duties of supplying foods, but carried out many other important responsibilities as well. They carried sutlers who sold various luxuries to the sailors and added greatly to the comfort and health of the officers and seamen of the blockading squadrons. These vessels made deliveries of food and munitions and "assisted the blockade in several instances by laying by certain steamers while they scaled their boilers and repaired them, besides keeping open the communication between the flag officers and the commanders of the individual vessels composing their commands."

The supply steamers were the major links in communication with the home front for the officers and seamen. They brought packages, boxes, trunks, and bundles for the men containing food, clothes, and news from home. The Connecticut at times would carry as many as 400,000 letters and 2,000 packages.

The system of supply evolved during the war from a haphazard distribution to that of a systemized one. Early in the war the Navy

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20 Maxwell Woodhull to Gideon Welles, October 4, 1861, ORN I, XXVII, 367-368; Boynton, The History of the Navy, 82.

21 Maxwell Woodhull to Gideon Welles, February 19, 1862, ORN I, XXVII, 417; Paullin, Naval Administration, 292.

22 Maxwell Woodhull to Gideon Welles, June 21, 1862, ORN I, XXVII, 446.
Department intended to use the Rhode Island and Connecticut alternately and as far as practicable to run regularly between New York and Texas communicating with every vessel from Cape Hatteras to the Gulf of Mexico. They were to supply these vessels in moderate quantities not exceeding a regular supply for two days in going out. By February, 1862, the vessels were to supply not exceeding a three days supply in going out. After supplying the last vessel on the outward trip, the paymaster would estimate the quantity of fresh beef and vegetables that remained and on the return trip the remaining supplies were "apportioned and delivered as equally as possible to the different vessels" which needed supplies. Also on the return trip vessels were to be supplied with ice in moderate quantities without charge, keeping a sufficient amount on hand to preserve any beef remaining. This system worked well until the Squadron increased in size.\textsuperscript{23}

By mid-1862 the need for more supply vessels became apparent with the vast increase in the number of blockaders. The Navy Department expanded its supply organization and ordered the Connecticut and Rhode Island to supply the Gulf squadron only, adding the Massachusetts as the only supply vessel for the North and South Atlantic blockading squadrons.\textsuperscript{24}


\textsuperscript{24}Gideon Welles to Louis Goldsborough, April 18, 1862, ORN I, XXVII, 428.
This policy caused immediate and very serious problems for both Atlantic coast squadrons. Rear Admiral Lee complained: "It appears that there are too many stopping places in the two squadrons in the Atlantic for one vessel to attend all and afford the reasonable relief to the officers and crew of this blockade which the nature of their service is doubtless disposed to grant them." 25 Vessels going north often brought supplies back to the vessels which had to remain on station, and at times vessels supplied others in order to keep them on station longer. 26

Communication problems also arose because of the inadequate number of supply vessels. Dispatches were detained at New Bern and Beaufort until an army transport going south could be utilized. Provisions at Wilmington were received every month to six weeks. Rear Admiral Lee pleaded for a supply steamer solely for his squadron. The Massachusetts supplied the Wilmington vessels on its way south and picked up their invalids and dispatches. On the return trip, however, she would not communicate. The Massachusetts could have communicated with little inconvenience resulting in only a few hours delay. This would have enabled the Wilmington blockaders to send messages without delay and also would prevent the invalids and dispatches from having to make the round trip to Hilton Head. 27

25 Samuel Lee to Gideon Welles, June 23, 1863, CRN I, XXVII, 512-513.

26 Samuel Lee to Dawson Phenix, October 5, 1862, Lee Collection, L.C.M.; Daniel Braine to Charles S. Boggs, March 31, 1863, CRN I, VIII, 642.

27 Samuel Lee to Gideon Welles, June 23, 1863, CRN I, XXVII, 512-513; Gustavus Scott to Samuel Lee, September 25, 1862, CRN I, VIII, 87; Samuel Lee to Gideon Welles, October 5, 1862, Lee Collection, L.C.M.
In order to keep the invalids from making the round trip, the Massachusetts began supplying the Wilmington vessels in her return trip, not touching there on her way south. Unfortunately, this caused the Wilmington vessels to receive provisions that were not fresh. The Navy Department finally agreed to allow the Massachusetts to supply the Wilmington vessels on her way south and pick up dispatches and invalids on the return trip. Burdened by the task of supplying the whole Atlantic coast, the Massachusetts was joined by the Blackstone. The Blackstone, however, was inadequate because she had an average speed of only eight knots. This vessel supplied the vessels off Wilmington in late 1862, but the majority of her cargo was destined for the South Atlantic Blockading Squadron. The need for a vessel to supply only the North Atlantic Blockading Squadron became increasingly apparent. Finally, in August, 1863, the Navy Department ordered the New Berne to assume the responsibility of supplying this squadron. This change had one officer boasting that they had "ice, fresh beef, vegetables &c every fortnight instead of once a month."\(^\text{28}\)

To keep the New Berne running on schedule, the senior officer present and each commanding officer was to give immediate attention to obtaining the supplies and mails from the vessel. They were to send a sufficient number of boats to receive the supplies and the proper officers to sign all the receipts. The New Berne's trips between New York

\(^{28}\) J. W. Smith to Gideon Welles, December 19, 1862, ORN I, XXVII, 1470-1471; Abstract log of U. S. S. Blackstone, ORN I, XXVII, 1471-1472; Gustavus Fox to Samuel Lee, March 11, 1853, ORN I, XXVII, 1423-1424; Gideon Welles to T. A. Harris, August 3, 1863, ORN I, XXVII, 523; William Keeler to Anna Keeler, August 9, 1863, Daly, Aboard the U. S. S. Florida, 77.
and Wilmington established regularity in the supply system. The New Berne supplied the vessels off Wilmington with scheduled stops twice a month, whereas the Connecticut had taken over a month between visits.  

Vessels also obtained supplies when they left their station for coal or repairs. At Beaufort, the sailors could buy chickens, fruits, and vegetables from the local inhabitants to supplement their shipboard diet. Their fare while in port was a welcome change from salty food to fresh meat, vegetables and soft bread. Occasionally, a vessel might be lucky and capture a blockade-runner carrying fruits such as bananas, pineapples, limes, apples, and preserves which gave the tar an even more varied regimen.

The department expended large sums of money to keep the supplies going to the vessels. The James F. Freeborn, later renamed the Nansemond, netted her owners $200 a day working for the quartermaster department. This came to $73,000 per annum while the vessel was worth only $65,000. Vessels also were leased by the registered ton; rates ran about four dollars a ton in 1862.

In 1863 Paymaster Bridge obtained the permission of Congress to inaugurate a new system of supplying the navy with bread. This allowed


30William Keeler to Anna Keeler, June 12, August 1, September 29, 1863, Daly, Aboard the U. S. S. Florida, 49, 75, 98.

31Samuel Lee to Gustavus Fox, July 5, 1863, Thompson and Wainwright, Fox Correspondence, II, 261; Samuel Lee to Gideon Welles, September 9, 1862, Lee Collection, L.C.M.; ORN II, I, 154.
the department to purchase the flour and bake the bread under naval inspection. The quality of bread improved, and was at a lower price.\textsuperscript{32} Previously, bread of poor quality had been purchased from contractors and bakers.

Beef at seventeen cents a pound, and vegetables at five cents a pound were supplied by contractors at Fortress Monroe. Rear Admiral Porter in 1864 ordered commanding officers to purchase the provisions at the most economical place, regardless of location provided they were of the best quality.\textsuperscript{33}

The navy expended a large sum to feed its men; the total cost of provisions during the war for the Atlantic and Gulf squadrons amounted to $1,063, 160.22.\textsuperscript{34}

One of the more important duties of the transport steamers was carrying north the sick, wounded, and those whose service had expired, and carrying out their replacements. Problems for the Wilmington vessels arose when the men's enlistments expired, and they asked to be discharged and sent home. The men wanted to be sent home in order to reenlist and obtain the bounties that were offered in their home states. Rear Admiral Lee wanted to reenlist them on shipboard and pay their bounty at sea, in an effort to keep them from the army. The Penobscot, in September, 1862, short eleven men, also had an average sick list of six or eight, making it impossible to man the guns and keep proper

\textsuperscript{32} Paullin, Naval Administration, 291.

\textsuperscript{33} General Order No. 45 of David D. Porter, Commander of the North Atlantic Blockading Squadron, November 12, 1864, Oliitz Collection, R.G. 45, Entry 395, N.A.

\textsuperscript{34} Boynton, The History of the Navy, 82.
watches at night. The Mount Vernon had to leave her station for Hampton Roads in order to replace sixty men whose enlistments had expired. In 1862 the vessels off Wilmington found themselves short more than one hundred men. To relieve this shortage, seamen were taken off the Brandywine at Hampton Roads and assigned to the Wilmington vessels. 35

If one particular ship had a shortage in personnel, the men might be taken from another ship to make up for this shortage. At times though it seemed they were taken from the wrong vessels. Rear Admiral Lee ordered the Monticello to provide the Dacotah with fifteen men. At that time the Monticello had 105 men, barely enough to operate, while the Daylight, also off Wilmington, had lighter guns, of a more uniform caliber, and a crew of 150 men. 36

Escaped slaves called contrabands was one way that the blockaders alleviated their manpower shortage. Contrabands frequently fled to the vessels early in the war. Because of the growing number, the Navy Department was forced to determine a policy concerning them. In July, 1861, Stringham suggested that "they may be made servicable on board our storeships," and Welles replied "you will do well to employ them." 37

The Navy Department began employing them upon the same regulations as applied to other enlistments, but with no rating higher than "boys."

35 Samuel Lee to Gideon Welles, July 2, 1861, ORN I, X, 222-223; John M. Clitz to Samuel Lee, September 5, 1862, Lee Collection, L.C.M.; Louis Goldsborough to Gideon Welles, April 27, 1862, ORN I, VII, 281; Samuel Lee to James A. Parker, October 5, 1862, Lee Collection, L.C.M.

36 Daniel Braine to Benjamin Sands, February 7, 1863, ORN I, VIII, 510-511.

37 Gideon Welles to Silas Stringham, July 22, 1861, ORN I, VI, 10.
At times complements of crews could not be filled by normal means, and the deficiency would be filled with blacks. In 1862 this "acclimated labor" was used in every department of a ship, and especially for boat crews. This greatly relieved the burden of obtaining crews.\(^{38}\)

In order for a tar to be sent home because of a disability, medical officers had to convene a board of three to make a survey on the man. For simple disease a ticket admitting the individual to a hospital was all that was necessary. The Wilmington vessels had a number of potential medical accommodations; a large hospital at Portsmouth, Virginia, and temporary hospitals at New Bern, Washington, and Plymouth, North Carolina. The army hospitals at Beaufort and Ocracoke, North Carolina, could also be used.\(^{39}\) The facilities in the North Carolina hospitals were generally average at best. The facility at Beaufort was, as one officer described it, a "large rambling tumble down looking building erected for a hotel for those desirous of experiencing the beauties of nature," and in contrast the Naval Hospital at Norfolk, a building "four stories high built of brick and stone."\(^{40}\)

In case smallpox appeared on one of the vessels the medical officer would transfer all bedding and clothing to the smallpox hospital at

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\(^{38}\) Gideon Welles to Louis Goldsborough, September 25, 1861, ORN I, VI, 252; Samuel Lee to John A. Dix, December 21, 1862, ORN I, VIII, 311; Gideon Welles to Louis Goldsborough, April 30, 1862, ORN I, VII, 294.

\(^{39}\) Samuel Lee to Alexander Murray, February 12, 1863, ORN I, VIII, 522.

\(^{40}\) William Keeler to Anna Keeler, May 9, September 20, 1863, Daly, Aboard the U. S. S. Florida, 32, 92.
Beaufort, and the vessel would be washed down and aired and would remain in quarantine for three weeks.\textsuperscript{41}

As mentioned previously one of the more important changes that the navy went through during the middle of the nineteenth century was the change from sail to steam and the employment of steam vessels on a blockade. Steam vessels could not remain long on their stations without recoaling. A real test for the Navy Department was to maintain the vessels at sea for long periods at a time and insure a continuous blockade by providing sufficient coal.\textsuperscript{42}

Gideon Welles realized early in the conflict the importance of logistical bases and providing the means with which to supply coal to the vessels. Welles commented in 1861: "It would be expedient and attended with much loss of time, as well as great additional expense, to compel the steamers when short of fuel to leave their stations and proceed to the nearest depot, distant, in most cases several hundred miles."\textsuperscript{43} Early plans to supply the United States warships included seizure of coal vessels and numerous designs for coal carrying vessels. In 1861 Commodore Paulding proposed that five vessels be purchased and filled immediately in order to supply the then existing two squadrons; three for the Gulf of Mexico and two for the Atlantic seaboard. A suggestion was also made to make the Fearnot, an armed coal vessel.\textsuperscript{44}

\textsuperscript{41}Circular by William Maxwell Wood, January 27, 1864, Roll 174, Captains Letters, N.A.

\textsuperscript{42}Boynton, The History of the Navy, 77.

\textsuperscript{43}Special Report of the Secretary of the Navy 1861, Senate Executive Document No. 1, 37th Congress, 1st session, 91, hereinafter cited as R.S.N. Special Report 1861.

\textsuperscript{44}Garrett Pendergast to Gideon Welles, May 7, 1861, ORN I, IV, 378; Minutes of the Board of Bureau Chief, June 5, 1861, R.G. 45, N.A.; Andrew A. Harwood to Commandant of the Boston Navy Yard, July 24, 1861; Lines of Supply and Supply Ships, R.G. 45, N.A.
Shortly after the war started, the Navy Department encountered problems in supplying the vessels with coal. The department decided to establish its first logistical coal base at Fortress Monroe. John Lenthall, the chief of the Bureau of Construction and Repairs, claimed that it was "of the first importance to have a supply of coal at that point as between it and Key West there can be no other depot." At that time the facilities at Fortress Monroe for handling coal were virtually non-existent; wharves and bins had to be built to aid in coaling.

An important step in supplying the vessels off Wilmington with coal came on May 2, 1862, when Rear Admiral Louis M. Goldsborough had one thousand tons of coal sent from Philadelphia to Beaufort. Upon sending the coal to Beaufort he ordered that "no vessel, stationed at Beaufort or Wilmington is to come here [Hampton Roads] unless she be ordered by the Navy Department or myself to do so." Goldsborough gave Samuel Lockwood, the commanding officer in the sounds, the task of finding the most desirable location for a depot.\textsuperscript{46}

In 1862 requisitions for coal were handled by the commanding officer off Wilmington who made his requisitions directly to John S. Chambers, the naval agent at Philadelphia, who then ordered coal in an amount which would be "abundantly sufficient," taking care to have an ample supply and to avoid demurrage. In late November, Captain Henry A. Adams became the coordinator of coal supply for the navy. By December,

\textsuperscript{45}John Lenthall to Garrett Pendergrast, May 13, 1861, ORN I, IV, 390-391.

\textsuperscript{46}Louis Goldsborough to Samuel Lockwood, May 2, 1862, ORN I, VII, 281.
1862, requisitions were to be made not to the agent at Philadelphia, but to the Bureau of Equipment and Recruiting. Commanders of vessels were to send these to Rear Admiral Lee who would forward the request to Philadelphia.\textsuperscript{47}

In February, 1863, the system of requisitions once again changed. The senior officers at the Wilmington inlets were to inform acting assistant Paymaster Frank F. Hastings regarding the amount of coal needed. Hastings in turn would make a request for coal to Henry A. Adams, the superintendent of coal in Philadelphia, if the request met the approval of Rear Admiral Lee. Thus the process of requisitioning coal became more bogged down in red tape and confusion.\textsuperscript{48}

By November, 1862, the vessels off Wilmington consumed an average of 1,200 tons of coal a month, each vessel taking on approximately 140 tons when it coaled at Beaufort. In early 1863 the vessels off Wilmington required 500 tons of anthracite coal a week and smaller amounts of bituminous coal. By 1864 the blockade vessels were largely composed of captured blockade-runners requiring bituminous coal. By August, 1864, 500 tons of bituminous coal were being sent each week to Beaufort, and by October and November over 1,000 tons of coal were received each week.\textsuperscript{49}

\textsuperscript{47}Samuel Lee to Gustavus Scott, December 1, 1862, Lee Collection, L.C.M.; Navy Department, Civil War Naval Chronology 1861-1865, 5 vols. (Washington, 1971), II, III, hereinafter cited as Civil War Naval Chronology.

\textsuperscript{48}Samuel Lee to Frank F. Hastings, February 27, 1863, ORN I, XXVII, 485.

\textsuperscript{49}Gustavus Scott to Samuel P. Lee, November 3, 1862, Lee Collection, L.C.M.; Lines of Supply and Supply Ships, R.G. 45, N.A.; Samuel Lee to Henry Adams, January 4, 1863, February 6, 1863, August 5, 1864, Lee Collection, L.C.M.
The coal depot located at Beaufort often ran short of coal. Occasionally the army quartermaster there could provide some, but in many cases the army borrowed coal from the navy. The coal problem seriously hurt the efficiency of the blockade. For example, in May, 1864, the Quaker City and other vessels off Wilmington found it necessary to go to Hampton Roads for coal because none could be obtained at Beaufort. 50

The Navy Department had difficulty in keeping coal in the right quantities at the depots including the one at Beaufort. The charter of vessels for transportation of coal was made in the open market and the rates varied with the demand for the vessels and the season of the year. This freight did not include demurrage. Carelessness and mishandling caused other delays which added expense to this demurrage charge. The Robbie U. Dillion lay at anchor thirty-one days beyond the nine days allowed for unloading, costing the government three times the freight. It was not uncommon to receive a rate twice as much as agreed. 51

The problem with demurrage became so acute that Rear Admiral Andrew Hull Foote, Chief of the Bureau of Equipment and Recruiting, asked Rear Admiral Lee to rectify the situation. Lee issued a general order calling attention to the great expense that the government paid for demurrage. This expense resulted from as Foote stated:


51 John Lenthall to Gideon Welles, July 15, 1861, R.G. 19, Entry 49, N.A.
Commanding officers of steamers finding it less troublesome and laborious to coal from full vessels, leaving others which have been more or less discharged, and drawing an expensive demurrage from the Government... [and that in the future]... such measures shall be adopted as will prevent this... that one vessel shall be discharged before the cargo of another had been broken, except in cases of absolute necessity, when several vessels must be coaled at once.52

There were many delays and late shipments for various reasons. All the coal before 1862 came from the eastern half of Pennsylvania, being forwarded to Philadelphia by both rail and barge down the Schuylkill River, then loaded onto coal schooners and sent south. Large amounts were often backed up in Philadelphia during the winter months because the Delaware became obstructed by ice. The coal had to be carried by shallow drafted colliers, usually with an eight-foot draft or less so that they could get into the Swash Channel at Hatteras Inlet. Nevertheless, even these colliers at times had to be lightened by transferring their coal into barges and other smaller vessels in order to get over the bar.53 Another delay, which caused a shortage came from a strike among the operatives in the mining districts. In this case, Rear Admiral Lee instructed two commanding officers to "observe the utmost economy, consistent with efficiency in the expenditure of fuel."54

52 General Order (no #) of Rear Admiral Samuel P. Lee, Commander of the North Atlantic Blockading Squadron, December 2, 1862; Lines of Supply and Supply Ships, R.G. 45, N.A.


54 Circular of Rear Admiral Samuel P. Lee Commander of the North Atlantic Blockading Squadron, July 15, 1864, Clitz Collection, R.G. 45, Entry 355.
When a Wilmington vessel needed to refuel, it had to make a one-day cruise to Beaufort. Before entering Beaufort the vessels had to stop at the buoy about one-half mile before Fort Macon and communicate by boat. This was the fort's precaution against commerce raiders. The *Dacotah* once narrowly escaped injury, when she touched the bar off the Beaufort channel and barely made off. A storm had caused a buoy to move three hundred yards and no one had bothered to replace it. The weather often made the bar at Beaufort difficult to navigate. The *Florida* once had to stay outside the bar four days because of a gale and the swell over the bar. Many vessels had to calculate to arrive at the bar at high tide in order to get in. Neither the *Santiago de Cuba* nor the *Fort Jackson*, because of their deep drafts, could pass the Beaufort bar to get coal or other supplies, and were forced to refuel at Hampton Roads. The *Saccacus* once had to hire a schooner at twenty dollars a day to take everything out of the hold except coal in order to pass over the bar.55

The Wilmington blockade during the entire war was weakened by a lack of vessels. When vessels were away coaling, Rear Admiral Lee warned the commanders to economize their fuel until more vessels came to the blockade, adding that "you may find it expedient not to keep more than one of the little vessels moving about at a time, even at night."56


56Samuel Lee to A. Ludlow Case, September 4, 1863, ORN I, IX, 191.
Regularly, the commanders of Wilmington appealed that the number of vessels on that station be increased. Commander James Armstrong of the State of Georgia stated in 1862 that:

Our present force here is small; one vessel is of necessity constantly away for coal, and as the vessels do not carry the same amount of coal, or for the same number of days, it is almost impossible to have only one absent at a time. There should be a force sufficient to allow one vessel to be absent from each side without reference to vessels on the other. This will require a force of at least ten vessels, and that number is believed to be requisite to maintain the blockade efficiently of this port alone.\(^{57}\)

The vessels off Wilmington took turns refueling at Beaufort. This system did not work well because of different coal capacities, different amounts of cruising each vessel performed, and the weather. The Alabama had to go every ten days to coal which took anywhere from five to seven days from leaving to returning. Rear Admiral Lee ordered that only one vessel should coal at a time and that there must be "no such custom as taking turns to go for coal."\(^{58}\) He instructed that either the larger vessels capable of carrying coal do all the cruising, or the smaller vessels do the cruising and go more often for coal. Rear Admiral Porter issued instructions that vessels were to be given specific times to go and return for coal.\(^{59}\)

Commander Pierce Crosby of the Keystone State requested permission to select coal at his discretion so that he could choose the

\(^{57}\)James Armstrong to Louis Goldsborough, August 23, 1862, ORN I, VII, 669.

\(^{58}\)William A. Parker to Gustavus Scott, November 5, 1862, ORN I, VIII, 196; Samuel Lee to Benjamin Sands, December 29, 1862, ORN I, VIII, 331; Benjamin Sands to Samuel Lee, February 10, 1863, ORN I, VIII, 519.

\(^{59}\)General Order No. 58 of David D. Porter, Commander of the North Atlantic Blockading Squadron, November 24, 1864, Clitz Collection, K.G. 45, Entry 395, N.A.
best coal from any coal collier. This would enable his vessel to obtain a speed of twelve knots. The Keystone State needed to obtain maximum speed because she cruised on the outer edge of the blockaders, chasing blockade-runners. Crosby also wanted to coal his vessel every ten days, coaling in "one day and a half, not losing more than two nights, and possibly not more than one." Crosby wanted to select his own coal because the captains often found the coal of such poor quality that their vessels could not maintain their usual speed. The Kansas once obtained such a "wretched quality of coal" having "a large proportion being slate" that she could not keep her steam pressure high and thus lost a blockade-runner for want of speed. Rear Admiral Lee asked that this matter be investigated and that the coal provided his vessels be of good quality. The faster blockaders that were predominately chasing vessels later were able to select their coal out of any collier laying at Beaufort.

On October 25, 1864, Rear Admiral Porter ordered blockading vessels that were running short of coal to go to Beaufort when the tide would permit the vessels to cross the bar. They were to make calculations to get there at daylight, coal all day, and leave in time to reach their stations before sunrise the next morning. In order for a vessel to stay longer at its station or to wait for its turn to coal, a vessel

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60 Pierce Crosby to Samuel Lee, June 17, 1864, Lee Collection, L.C.M.

61 Pendleton Wintmough to Samuel Lee, May 29, 1864, ORN I, X, 103; Samuel Lee to Henry Adams, June 5, 1864, Lee Collection, L.C.M.; Report of Coal Received and Discharged at Beaufort, N. C., Lines of Supply and Supply Ships, R.G. 45, N.A.
might borrow coal from another. The Wilmington vessels used this procedure especially for vessels at the extremes of the blockade and those that were the most useful blockading vessels. 62

The coaling system at times did not work well. On the night of November 19, 1863, there were eight blockaders in Beaufort for coal and repairs, and in the latter part of April, 1864, there were nine, leaving but three vessels off of New Inlet. However, this weakening of the blockade off Wilmington might have been the result of the attack of the C.S.S. Albemarle on Plymouth on April 17, which caused the navy to increase its efforts to protect Beaufort. 63

Rear Admiral Porter ordered other procedures to streamline the coaling at Beaufort. When vessels arrived at Beaufort to coal, they were to anchor in line near the coal schooners opposite the store vessels. Only when all these vessels were engaged in coaling were they to move to the upper part of the harbor where the colliers were anchored. Earlier blockading vessels had anchored near the army stores depot so they could protect the stores from the enemy while taking coal. Seven schooners were to be kept at all times "abreast of the store vessels and in sufficient depth of water to enable two vessels to coal from them at one time." 64

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63Samuel Lee to Gustavus Fox, December 10, 1863, Thompson and Wainwright, Fox Correspondence, II, 272; Samuel Lee to Benjamin Sands, April 26, 1864, ORN I, IX, 699.

64Rules and Regulations to Beaufort Harbor (n.d.), By Admiral David D. Porter, Commander of the North Atlantic Blockading Squadron, Clitz Collection, R.G. 45, Entry 395, N.A.
Coal colliers were not to remain in Beaufort with only a small amount of coal in their holds, but were to be entirely discharged, at which time demurrage would cease. Vessels of war were to use coal in the vessels in the upper part of the harbor only if the coal had been completely discharged in the vessels anchored in the lower harbor, which should never occur because as fast as one became emptied another would replace it. 65

There were several ways in which a vessel could be coaled. At Fortress Monroe in 1861, barrows were used to carry the coal along a small pier or pile wharf to the vessels where it was shoveled into the hold. At Beaufort there probably was a similar arrangement, but instead of barrows, they used iron buckets, each carrying 375 pounds of coal, which were wheeled to the vessels on "medium-sized warehouse trucks." In March, 1863, Rear Admiral Lee requested six of each to be sent to Beaufort to coal the vessels off Wilmington. 66

John J. Almy commanding officer of the Connecticut found it easier and more economical to coal his vessel with coal baskets to be passed along from man to man. His vessel had worn out a set of baskets, and he requested to be furnished with two hundred more. Rear Admiral Lee also had coal put in bags and stored aboard the Fahkee. She was then anchored on the sheltered side of the Frying Pan Shoals in order

65 Rules and Regulations to Beaufort Harbor (n.d.), By Admiral David D. Porter, Commander of the North Atlantic Blockading Squadron, Clitz Collection, R.G. 45, Entry 395, N.A.

66 John Lenthal to Garrett Pendergrast, May 13, 1861, ORN I, IV, 390-391; Samuel Lee to Henry A. Adams, March 7, 1863, Lee Collection, L.C.M.
to coal the smaller vessels; keeping these vessels on their stations more regularly. 67

Often a collier unloading coal would make a short delivery. In order to correct this problem Lee ordered that vessels would "detail a reliable officer to see that the buckets are equally filled and every tenth one carefully weighed in his presence," then to give a certificate to the captain of the schooner and get a receipt for the commanding officer for the amount received. 68

The blockade of Wilmington would have been rendered more efficient if towed coal vessels were anchored off the coast. The Bureau of Equipment and Requiring wanted this done and asked Henry A. Adams, the coordinator of coal supplies for the navy, to try to implement a program of this type. Adams was unable to find any owner which would agree to this plan. Adams stated:

I have not yet been able to find any captain willing to go there on any terms, they allege that the anchorage is exposed and rough, and say their vessels would be knocked to pieces in discharging alongside .... I think they probably overrate the risk to their vessels .... But after all, from present indications, I fear it will be difficult to persuade any of them to go there. 69

Rear Admiral Lee corrected Adams telling him that the masters of the colliers were "under a misapprehension," that he had never intended to

67 John J. Almy to Samuel Lee, February 12, 1864, Lee Collection, L.C.M.; Samuel Lee to Gustavus Fox, Thompson and Wainwright, Fox Correspondence, II, 271.

68 Samuel Lee to Commanding Officer of William Badger, December 31, 1862, Lee Collection, L.C.M.; General Order (no #) of Samuel Lee, Commander of the North Atlantic Blockading Squadron, January 16, 1863, Clitz Collection, R.G. 45, Entry 395, N.A.

69 Henry Adams to Samuel Lee, March 27, 1863, ORN I, VIII, 631.
lay the colliers beside the vessels but to let them ride astern by a hawser of proper length. The coal would then be unloaded with the assistance of wharfs, which had been used when one vessel coaled another. Lee also stated that there was a safe anchorage off the western bar where the colliers could ride out any gale. In September, 1863, Lee tried to coal the Minnesota from a collier towed from Beaufort, but bad weather made it impracticable. 70

The navy evidently did not try this method until late in the war when, under Rear Admiral Porter, colliers were towed down before the first bombardment of Fort Fisher. The schooners were to be fitted with good ground tackle because of the problems of them going aground on Smith's Island. The navy used a small launch to coal the vessels when the sea became too rough to lay alongside the schooners. Rough water dominated "in five days out of the week," knocking the little vessels to pieces, causing damage to either the tug or collier nearly every time one went alongside to coal. 71

Logistics played a large part in the success or failure of the Union blockade. The Wilmington blockade illustrates the problems which navy encountered on the whole southern coast in supplying and coaling its blockaders. The navy was able to solve their problems to a great degree, through better organization. At the war's end provisions for


both man and machines were being distributed about as well as could be expected under the circumstances of war. Logistical problems directly affected efforts to stop the illicit trade at Wilmington, thus forcing the navy to search for other means to close this southern port.
THE NAVAL THREAT AT WILMINGTON

The Union warships at the entrances of the Cape Fear River functioned not only as blockading vessels but also as a viable military threat to this part of the Confederate coast. Throughout the war these vessels continually assaulted and probed the Confederate defenses and harassed the state's salt works. This mission caused the Confederate government much anxiety during the entire war, and covered an immense portion of the coast from Murrell's Inlet, South Carolina, to New Topsail Inlet, North Carolina.

The first action by the Union navy off Wilmington occurred in December, 1861. The Confederacy had been making use of a light ship which formally had been stationed at Frying Pan Shoals. The Confederates were using this ship as a beacon to guide vessels in at night by hoisting lights. On December 30, 1861, Commander Oliver S. Glisson of the Mount Vernon sent fourteen men in a cutter and gig with flammable material to fire the vessel. Upon boarding the vessel they found that the Confederates were in the midst of converting it into a vessel for harbor defense mounting eight guns; six broadside and two aft. The Union sailors were able to fire the ship and escape without mishap.¹

Union naval vessels made several attempts to burn other vessels in the inlets below the forts. The steamer Kate was the object of several

¹Oliver, Glisson to Louis Goldsborough, December 31, 1862, ORN I, VI, 493.
efforts. On October the eighth, tenth, and twelfth, 1862, the senior officer sent out over twenty men, and each time they were unsuccessful because of the heavy surf. Even though they were unsuccessful, Rear Admiral Lee thought that actions such as this could not "fail to impress upon the department the conviction that the blockade of that port may be relied upon as one of the most efficient on the coast." 2

As the blockading force increased off the inlets of Wilmington the vessels began to expand the coverage of territory. The Wilmington flotilla was responsible as far south as Little River, South Carolina, and as far north as New Topsail Inlet, North Carolina. At times these vessels pursued and operated outside their operational zone.

Subsidiary operations by the Wilmington flotilla greatly added to the effectiveness of the blockade. Much blockade-running activity was carried on at Little River, and Murrell's Inlet, South Carolina. On numerous occasions vessels from Wilmington sortied to these inlets and destroyed salt works, vessels, and tremendous amounts of supplies with great success and little or no losses. 3

After several engagements at Murrell's Inlet, Flag Officer Lee instructed Captain Charles Boggs the senior officer that he was not to

2Francis Bunce to Gustavus Scott, October 16, 1862, ORN I, VIII, 155; William A. Parker to Gustavus Scott, October 17, 1862, Lee Collection, L.C.M.; Samuel Lee to Gustavus Scott, October 27, 1862, ORN I, VIII, 155.

make any more attacks there, as it was outside of the operational limits of the North Atlantic Blockading Squadron. Lee had given Admiral Du Pont the information necessary for further operations in that area. Lee explained the reason for this policy being that it was "not expedient to divert from the important blockade off Cape Fear River and the coast of North Carolina any part of the force we have there."  

Lee realized that the Confederacy carried a large trade out of both Shallotte Inlet, and New Topsail Inlet but had claimed to Assistant Secretary of the Navy Fox in late 1862, that he had "shut both doors."  

Lee had been misinformed, for north of the Cape Fear River blockade-runners continued to violate the blockade of these inlets. One of the most dashing and audacious of the Union leaders, William B. Cushing, while in command of the Shokokon, made a reconnaissance of New Topsail Inlet on August 12, 1863. Cushing's party was driven out by Confederate artillery, but discovered a schooner which they determined to destroy. On the night of August 22, Cushing led two boat crews ashore, where they shouldered the dingys across one-half mile of land to avoid the artillery, and landed at their rear. This maneuver enabled them to capture ten men and destroy extensive salt works and the schooner they had observed. The party returned to the Shokokon with three prisoners, seven less than they captured, with no casualties.  

Reconnaissance missions and sorties at the major inlets of Wilmington were common and very productive during the entire war. Boat

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4Samuel Lee to Charles Boggs, May 11, 1863, ORN I, IX, 15-16.

5Civil War Chronology, II, 107-108.

crews were constantly patrolling the waters and carrying on reconnaissance missions in and around the waters. Union vessels periodically exchanged shots with the forts to test the fort's range and to disrupt activities within the forts. In August, 1863, the Confederates refloated the steamer Kate which had been run aground by the Penobscot, the month before. Upon observing this activity the Mount Vernon, Iroquois, and James Adger all set out to recapture the vessel, which caused the Confederate vessels to abandon the Kate. The Union vessels thus captured the vessel with little difficulty. In the capture however they were fired upon by Fort Fisher cutting up the Mount Vernon's rigging and killing one man, supporting the adage that nothing was ever gained without involving risk.  

In February, 1864, one of the more daring exploits of the blockade took place. Lieutenant William Cushing with twenty men passed Fort Caswell with the object of capturing the commanding officer, General Louis Hébert at Smithville. They landed at a hotel and managed to get to the general's headquarters. The Union sailors captured the chief engineer, but found that Hébert had left for Wilmington. An aide escaped "with a great scarcity of clothing" but did not give an alarm thinking the garrison had mutinied. Cushing succeeded in bringing his prisoners off without alarming anyone and the fort never fired a single shot.  

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7 James Trathen to Samuel Lee, August 3, 1863, ORN I, IX, 143-144; Samuel Lee to Gideon Welles, August 6, 1863, ORN I, IX, 142.

8 William Cushing to Samuel Lee, March 5, 1864, ORN I, IX, 511.
Expeditions such as this accomplished many things; they often acquired information on blockade-running and defenses with no casualties. Gustavus Fox realized the value of missions such as this and suggested that the "department will not find any fault with any dashing expeditions that give reasonable hope of a result injurious to the enemy, even though they fail occasionally." 9

On April 21, 1864, the Union naval force off the Cape Fear executed another daring raid, the target, the state salt works in Masonboro Sound. The Union navy during the entire war had conducted operations against salt works because of their importance to the Confederacy. The navy had gained the information about the Masonboro works from six refugees who were picked up at sea in March. The expedition to destroy these works consisted of six boats carrying 101 men and officers. The men claimed to have destroyed fifty or sixty large government wagons, a steam pump, and seven boilers by throwing thirty-pound shells into them. Also destroyed were several horse sheds, about two hundred salt pans, large vats, reservoirs, and outbuildings. Some sixty prisoners were taken, without the loss of a single man. This large salt work turned out 190 bushels of salt a day for the Confederacy. There is some doubt, however, that the raiding force did the damage they claimed to have done for salt commissioner David Work claimed, "The greatest damage was to the engines and pumps . . . . If I could pump water, I could run two-thirds of the works today." 10

9Gustavus Fox to Samuel Lee, April 8, 1864, ORN I, IX, 589.
10Samuel Lee to Gideon Welles, April 26, 1864, ORN I, IX, 672; Benjamin Sands to Samuel Lee, April 22, 1864, ORN I, IX, 674-675; William Calder to mother, April 25, 1864, William Calder Papers, Southern Historical Collection, Chapel Hill, hereinafter cited as Calder Papers, S.H.C.; The Wilmington Journal, April 28, 1864.
Intelligence gathering was one of the key responsibilities of the Union fleet. Much of the important information that the navy obtained came through men who had been a part of the Confederate government and could give accurate, detailed, and very important accounts of fortifications and troop strengths, topographic information, and blockade-running information. In the Wilmington area there were many Union sympathizers which aided this activity. The crews going on information-gathering expeditions were carefully picked for experience; paymasters, medical officers, and engineers were not allowed on these dangerous missions. The navy had three scouts that had visited almost the entire area from Fort Fisher to Masonboro and kept a semi-weekly or tri-weekly communication with the vessels. The Niphon landed the vessels until it became too valuable for that task. Commanders were instructed to examine each man that came to the vessels privately, and to offer him rewards for information.\footnote{Elmanson Semon to Edmund Kemble, September 19, 1864, COR I, X, 508; Joseph Breck to Samuel Lee, May 26, 1864, COR I, X, 94; Samuel Lee to Oliver Glisson, September 27, 1864, COR I, X, 511; Samuel Lee to W. A. Parker, November 21, 1862, Lee Collection, L.C.M.}

In June, 1864, William Cushing carried out another reconnaissance mission. Cushing and fifteen men went into the Cape Fear River to within three miles of Wilmington to determine the whereabouts of the Confederate ironclad Raleigh, unaware that it had sunk on the sixth of May. Cushing and his men rowed past the batteries of the western bar on the night of the twenty-third. The information that Cushing gained in two days proved invaluable. He reported that the C. S. S. Yadkin, the three hundred-ton flagship of Flag Officer Lynch, mounted only two guns
and did not seem to have many men, and the ironclad C. S. S. North Carolina was no match for a monitor. Cushing's men captured a fishing party, twenty-six in all, and a mail carrier with four hundred letters, and managed to cut the wires between Wilmington and Fort Fisher. On their return they were discovered and pursued and only Cushing's ingenuity saved the party from capture.\(^{12}\)

The many schemes for captures and expeditions were, more often than not, successful. These Union sorties were very valuable for many reasons. They gained valuable military information while risking very little. Union probes kept the Confederate troops employed in areas that perhaps they normally would not have been concentrated, forcing the Confederacy already pressed for men to expend more. The fact that Wilmington was not considered as important militarily as Charleston and other Confederate strongholds perhaps motivated the commanders to act in any way they could to badger the enemy at Wilmington. The Union navy's preoccupation with other more important projects made these probes and expeditions even more significant in order to keep the Confederacy off guard.

The Navy Department had not been content with just these small military sorties against Wilmington, but planned the capture of this city many times before its eventual capture in 1864. From the very inception of the blockade the United States Navy made plans to take

\(^{12}\text{William Cushing, Journals of Vessels of the U. S. Navy, Naval Records Collection of the Office of Naval Records and Library, Record Group 45, National Archives, Washington, D. C., 48-56, hereinafter cited as Cushing, Journals of Vessels; J. R. Randall to Katie, June 29, 1864, J. R. Randall Collection, Southern Historical Collection, hereinafter cited as Randall Collection, S.H.C.}\)
Wilmington from Confederate hands. The Blockade Strategy Board in 1861 suggested outfitting an expedition in New York with a few hundred men and surfboats to land at New Inlet, which the Confederacy had not fortified, and seize all the depots and break up the railroad at Wilmington. The board also made the suggestion to make a reconnaissance at Masonboro and Riches inlets for the possibility of a night attack on Wilmington.\footnote{13}

Department policy and preference dictated much of the strategy and delays in the capture of Wilmington. Union military forces early in 1862 captured the principal forts and towns in the sounds region of North Carolina. Rear Admiral Lee commented that these captures were:

\begin{quote}
. . . loadstones instead of stepping stones to progress. The capture of Hatteras Inlet and their vessels put a stop to the rebel depredations from that quarter on our commerce. The easy capture of Fort Macon gave us the possession of Beaufort Harbor; thus we had all the seacoast of North Carolina, except Wilmington, the capture of which was as easy then as difficult now, and the army then had there many vessels and boats suitable for the transportation required. But the complete acquisition of the seacoast was abandoned in the favor of the sound towns.\footnote{14}
\end{quote}

The Wilmington residents heard rumors of attacks during the entire war. The first in October, 1861, centered around the Union's build-up to capture Charleston, South Carolina. Word had filtered back to Wilmington where one of the prominent ladies of the town, Mrs. Armand J. DeRosset, commented: "Our town is in a state of excitement expecting the fleet to make an attack at any moment."\footnote{15} The residents experienced

\footnote{13}Strategy Board Minutes (n.d.), September 2, 1861, R.G. 45, M.A.
\footnote{14}Samuel Lee to Gideon Welles, December 22, 1863, ORN I, IX, 370-371.
\footnote{15}Armand J. DeRosset to Kate Meares, October 29, 1861, DeRosset Family Papers, Southern Historical Collection, University of North Carolina, Chapel Hill, hereinafter cited as DeRosset Family Papers, S.H.C.
these rumors for years, but each time the navy fitted out an expedition, it sailed for a port besides Wilmington. The residents, though, strongly suspected that Wilmington someday would be the object of an attack.

At the beginning of 1862, rumored attacks again reached Wilmington. A soldier at Fort Fisher commented: "We are looking for the Yankees tomorrow and we are making all the preparations we can to meet them. We are . . . confident of success . . . ."\(^{16}\) Another soldier claimed: "We are looking for Old Mr. Burnside to give us a call some of these days . . . . He had better mind how he 'works his quills' about this place or else he may leave with his name slightly changed from Burnside to Burntside."\(^{17}\) The force they anticipated though was intended for the sounds of North Carolina.

After the fall of the sounds region the attention of the Navy Department focused upon Wilmington. This early interest became overshadowed by the Peninsula campaign. The moment Richmond fell Flag Officer Goldsborough claimed he would "take the ironclads to Wilmington, N. C., and reduce Fort Caswell."\(^{18}\) Goldsborough stated, "My next job is to take Wilmington, N. C. It is easy in accomplishment comparatively speaking. There all my work, as far as my command

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\(^{16}\) David Buie to Kate McGeachy, January 14, 1862, Catherine Buie Collection, Manuscript Department, Perkins Library, Duke University, Durham, hereinafter cited as Buie Collection, D.U.M.C.

\(^{17}\) Friend to Kate McGeachy, January 18, 1862, Buie Collection, D.U.M.C.

\(^{18}\) Louis Goldsborough to Gideon Welles, May 12, 1862, OR\#1, VII, 342.
extends will have been accomplished, I will take the Monitor and
Galena there and make short work of it."19

The Navy Department however insisted that Flag Officer Goldsborough
give Wilmington attention by immediately attacking Fort Caswell with the
two ironclads. By May thirteenth the department ordered him to abandon
this proposed attack. Assistant Secretary of the Navy Fox claimed the
navy was determined to obtain a more important place, Charleston,
South Carolina. But Fox did tell Goldsborough to attempt a capture of
Fort Caswell if he could, but because of the Charleston project, he
would not be given any assistance by the army, only enough to garrison
the fort.20

Following the department's wishes in May, 1862, Goldsborough
instructed Commander Glisson of the Mount Vernon to take the "small
work" at New Inlet, if he could without risking the loss of his vessel.
He was to proceed to Fort Caswell, and if it looked weak, to "make a
guarded demonstration against it, & get it if he could."21 For an
operation like this, Goldsborough would need the assistance of more
vessels. He was convinced this could be accomplished as soon as he
could have the services of the Monitor and other vessels. Goldsborough

19Louis Goldsborough to Elizabeth Wirt Goldsborough, May 12, 1862, Louise M. Goldsborough Collection, Library of Congress Manuscript
Division, hereinafter cited as Goldsborough Collection, L.C.M.

20Gideon Welles to Louis Goldsborough, May 11, 1862, ORN I, VII
341; Gustavus Fox to Louis Goldsborough, May 17, 1862, Thompson and
Wainwright, Fox Correspondence, II, 269.

21Louis Goldsborough to Gustavus Fox, May 21, 1862, Thompson
and Wainwright, Fox Correspondence, I, 272-273.
thought he needed "no services & no assistance whatever from the Army," for he would use marines to garrison the forts.\textsuperscript{22}

An opportunity such as this should not have been passed up because the garrisons of the lower Cape Fear forts were extremely weak due to the Peninsula campaign. On June 2, 1862, Welles offered Goldsborough the services of the sidewheel gunboats Genesee and Tioga. These new vessels, including the ones at Wilmington, were to move against the fort as soon as Richmond fell. Welles thought this "sudden demonstration" against Fort Caswell would be successful.\textsuperscript{23}

The Navy Department's designs for attacking Fort Caswell slowly slipped away as Goldsborough lost the services of the Susquehanna, a vessel upon which he had largely relied. He had installed on the vessel two 100-pound Parrott guns for shelling the fort. Also the Monitor and Galena could not possibly be made available in time. The Galena had suffered serious damage in a battle at Drewery's Bluff on May 15. By June 16, the Galena was not nearly ready for battle and the Monitor could possibly "be rendered available in some way or other." The department ordered that an attack should not be made unless the Monitor could be used, for without this vessel the attack would be too weak.\textsuperscript{24}

At the same time that Washington had an attack on Fort Caswell under consideration it also had its eyes on Charleston, South Carolina.

\textsuperscript{22}Louis Goldsborough to Gustavus Fox, May 21, 1862, Thompson and Wainwright, Fox Correspondence, I, 272-273.


\textsuperscript{24}Louis Goldsborough to Gustavus Fox, June 3, 1862, Thompson and Wainwright, Fox Correspondence, I, 279-280, June 16, 1862, I, 287.
Goldsborough's inability to procure the vessels needed for his operations and Washington's sudden change in preference caused a move toward this Confederate stronghold. The navy at this time needed a political victory as well as a military one. For as Assistant Secretary of the Navy Fox said: "We should be inclined to skip Fort Caswell...for the fall of Charleston is the fall of Satan's kingdom." \(^{25}\)

With the change of squadron commanders came new plans to attack and capture the defenses at Wilmington. The next series of proposals to move against Wilmington were the most serious until the attacks in late 1864 and early 1865, which culminated in the capture of Fort Fisher.

The shallow southern waters limited the navy's effectiveness during the entire war. Wilmington was no different than the rest of the southern ports. By far the greatest obstacles the Union navy had to overcome in an attack against Wilmington were the bars off each entrance of the Cape Fear, which prohibited the larger vessels from getting into the river's inlets. One of Fort Caswell's occupants remarked: "Our greatest protection is in the 'bar', a vessel drawing more than fourteen feet cannot cross..." \(^{26}\) The Navy Department had to determine whether or not the bars off the inlets had enough water to allow the deeper drafted vessels to cross them. As early as September 2, 1861, the Blockade Strategy Board had recommended a careful reconnaissance of New Inlet which at the time would not have been difficult. By mid-1862 it had become a "risky business" because vessels taking the

\(^{25}\) Gustavus Fox to Samuel Du Pont, June 3, 1862, Hayes, Du Pont, II, 97.

\(^{26}\) Friend to Kate McGeachy, April 17, 1863, Buie Collection, D.U.M.C.
surveys would be within eight hundred yards of thirty guns at New Inlet, and at the western bar, one and a half miles under a similar armament.27

At the end of September, 1862, Daniel L. Braine, commanding the Monticello, supervised a survey of the western bar. Three ships were placed about two and one half miles from Fort Caswell, at a sufficient enough distance to obtain good angles on the bar. The positions of the vessels were determined by compass bearings upon Bald Head lighthouse, Fort Caswell, and a local house they called the Miller house. The vessels also used sextant angles on the same points and on the pole on Oak Island. Braine took two surveys with "good contraband pilots" and found there to be ten feet on the bar and up the channel at low water.28

Pilots were also a necessary ingredient to get the vessels into the Cape Fear. George Bowen, a captured Wilmington pilot, had earlier helped survey the inlet. Flag Officer Goldsborough asked for eight men who were "thoroughly well acquainted with the entrances to Wilmington ... that of the main ship channel and that of New Inlet," and tried to get coasting captains out of New York which were "among the very best to be found."29 The pilots which Goldsborough requested were not available so Gideon Welles tried to obtain pilots from the prisoners at Fort Lafayette in New York offering a "large reward" of $5,000 if

27Blockade Strategy Board Minutes, September 2, 1861, Subject File, R.G. 15, N.A.; Daniel Braine to C. P. Patterson or Alexander Bache, August 20, 1862, ORN I, VII, 665.

28Daniel Braine to Samuel Lee, September 29, 1862, Lee Collection, L.M.C.

they would take an ironclad to Wilmington and back. By December 11, 1862, Flag Officer Lee had three pilots and one "pilot gunner."\(^{30}\)

The plans to capture Wilmington had been modified by the Navy Department to include either inlet. The new plans incorporated the use of the Monitor and the Passaic "to clean out Wilmington and its railroad connections."\(^{31}\) General John Foster proposed to march from New Bern and cut the railroad at or about Goldsboro, then to march either to Tarboro or return to New Bern. From this point his forces would march to Wilmington receiving supplies from New Topsail Inlet brought by four or five light draft steamers.\(^{32}\)

Assistant Secretary of the Navy Fox planned to have the ironclads enter the Cape Fear River at Western Bar while the remaining vessels attacked Fort Fisher from the front. The ironclads would steam up the river and attack the fort from the inside. Foster and his troops meanwhile would march toward Wilmington and with naval cooperation capture the city. Rear Admiral Lee argued that by splitting the naval force the attack was weakened, and questioned the sufficiency of such a force. Fox thought that once the defenders had been driven out that "we have only to land under cover of ships, spike the guns, and all the small gunboats enter New Inlet, at once and accompany the ironclads

\(^{30}\)Gideon Welles to Martin Burke, November 26, 1862, ORN I, VIII, 235; Gustavus Fox to George W. Blunt, November 28, 1862, ORN I, VIII, 237; Samuel P. Lee to Gustavus Fox, December 11, 1862, Thompson and Wainwright, Fox Correspondence, II, 238-239.

\(^{31}\)Gustavus Fox to Samuel Lee, November 7, 1862, ORN I, VIII, 203.

\(^{32}\)Samuel Lee to Gustavus Fox, December 2, 1862, ORN I, VIII, 245-246.
to Wilmington." All these plans though hinged on passing Fort Caswell. Fox added that possession of the entrance would enable them to hold Wilmington until General Foster could come by land or sea. If this were not possible, the ironclads would be "obliged to go to Wilmington, destroy all the vessels, ferry boats, depots, and return, an adventure attended with much risk and wanting in complete success."

Fox argued that this plan was founded upon the assumption that they pass Fort Caswell successfully with ironclads, yet at the same time there were not a sufficient number of them to reduce the forts. Fox remarked:

Our fire from these turret vessels is too slow for that. Though the popular clamor centers on Charleston, I consider Wilmington a more important point in a military and political point of view and I do not conceal from myself that it is more difficult of access on account of the shallowness of the bars, and more easily defended inside by obstructions, yet it must be attacked and we have more force than we shall ever possess again since the iron clads must go south so soon as four are ready. . . .

Lee, like Goldsborough, experienced problems obtaining the vessels he needed for the operation. The Passaic became delayed for want of men from New York. The Navy Department had to pay them double wages to get them there faster. Lee also wanted the services of the State of Georgia, Monticello, and the Colorado. While in Hampton Roads Flag

33Samuel Lee to Gustavus Fox, December 14, 1862, ORN I, VIII, 298-299; Gustavus Fox to Samuel Lee, December 15, 1862, Thompson and Wainwright, Fox Correspondence, II, 244.

34Gustavus Fox to Samuel Lee, December 15, 1862, Thompson and Wainwright, Fox Correspondence, II, 244.

35Gustavus Fox to Samuel Lee, December 15, 1862, Thompson and Wainwright, Fox Correspondence, II, 244-245.
Officer Lee constantly asked for more monitors to make the attack a more powerful one. Welles gave Lee eleven vessels for the offensive operations against Wilmington, the Colorado, Ossippe, Juniata, Tacotah, Connecticut, Rhode Island, Columbia, Sophronia, Racer, Passaic, and Montauk. This sudden change by the department came because of the crushing defeat at Fredricksburg. This setback motivated Washington to push its plans to capture Wilmington because the Union needed a victory to offset this defeat, even a minor one at the earliest opportunity. Rear Admiral Samuel Du Pont thought this operation against Wilmington to "preceed the one on Charleston was one of those chaotic conceptions, produced by the desire of the President and others 'to strike a blow' somewhere."  

The major worries for the Union navy at this point were still the depth of the bars and the obstructions that the Confederates had placed in the rivers. The Union navy knew the Nashville had a draft of eleven feet when "light" and had run over the western bar. Assistant Secretary of the Navy Fox did not doubt the depth of the channel. He commented, "Oh there is plenty of water . . . the Nashville got in there."  

John P. Bankhead, captain of the Monitor, thought that passage over New Inlet was not feasible for vessels of the Monitor's draft.

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37 Charles Green to Gideon Welles, May 24, 1862, ORN I, VII, 266; Samuel F. Du Pont to Sophie Du Pont, January 25, 1863, Hayes, Du Pont, II, 379.
(ten feet four inches). Bankhead considered the bar too exposed to the entire sweep of the sea, and northerly and easterly winds. The swell on the bar averaged two feet in ordinary weather making that passage hazardous. Western Bar on the other hand had a safe passage, and he thought there should be no difficulty in the Monitor's getting over that bar. His major concern was in encountering obstructions which would hold up the ironclads under fire. The Cape Fear had a shoal spot under the guns of Fort Caswell where obstructions had been placed known as the "rip." 38 The obstructions at the "rip" consisted of two rafts seven hundred feet in length anchored across the channel. Heavy timber forty feet long, with sharpened ends were held in place by mortised and tenoned joints, and were anchored in the middle with a chain. The two rafts were connected by chains in mid-channel, and at high tide the whole or parts of it floated. 39

Bankhead suggested that a "sufficient number of ironclads" could engage the different batteries commanding the rips, but he feared that the supply of ammunition would be exhausted before the works could be reduced. If Fort Caswell's guns were silenced, Bankhead thought the obstructions could be removed at the navy's leisure. Percival Drayton who commanded the Passaic, suggested that the obstructions could be removed by gunfire, but this expedient would only remove the upper

38 John Bankhead to Samuel Lee, December 27, 1862, ORN I, VII, 327-328.

39 Francis M. Bunce to Oliver Glisson, June 20, 1862, ORN I, VII, 493.
portion near the water line. Torpedoes were a possibility but they were both "uncertain and slow."\textsuperscript{40}

Flag Officer Lee wanted to learn more about the obstructions before committing his forces, and asked Captain Benjamin F. Sands to send Lieutenant Commander Daniel L. Braine and Mr. Kroehl, an expert on obstructions and torpedoes, to the obstructions at night. They were to go in a small boat to determine their character and the possibility of removal. The whole operation depended on the recommendation of Commander Braine who had some knowledge of the area, and Benjamin Sands, the senior officer. Lee had thought of sending the vessels over the New Inlet bar and asked Sands to determine the depths of the bar there. A survey on December 27, determined that there was nine feet over the bar, but that a vessel of ten and one-half feet could safely cross at high tide when approximately twelve feet of water would be over the bar.\textsuperscript{41}

Sands reported back to Lee that the ironclads could get into Western Bar Inlet, but at the rips there were eight feet of water at low tide, a narrow channel, and a strong current. This would make it difficult to keep a vessel which steered badly in the channel. Sands also noted that once a vessel crossed the bar, there would be no coming back for ammunition or anything else.\textsuperscript{42}

\textsuperscript{40}John Bankhead to Samuel Lee, December 27, 1862, ORN I, VIII, 327-328; Percival Drayton to Samuel Lee, December 27, 1862, \underline{ORN I, VIII}, 326-327.

\textsuperscript{41}Samuel Lee to Benjamin Sands, December 21, 1862, ORN I, VIII, 318; Samuel Lee to Benjamin Sands, December 29, 1862, ORN I, VIII, 331; Louis A. Brown to Daniel Braine, December 29, 1862, ORN I, VIII, 334-335; George F. Bowen to Daniel Braine, December 28, 1862, ORN I, VIII, 335.

\textsuperscript{42}Benjamin Sands to Samuel Lee, January 2, 1863, ORN I, VIII, 401.
The department decided to use the three ironclads which were ordered to join the attacking force at Western Bar. The Passaic, Monitor, and Montauk were instructed to go to Beaufort and stay until a decision was made about the Wilmington attack. Lee made plans to leave Hampton Roads after the departure of the ironclads. The Monitor had a draft that could get her over the bar but the Passaic and Montauk were both questionable. Lee expressed his worries, claiming:

... the greatest, if not the only, difficulty of the proposed undertaking arises from the extremely shallow and narrow passages into Wilmington—a great natural difficulty (not felt at New Orleans and not to be feared at Charleston) which may be insurmountable when additionally embarrassed by obstructions and other defensive provisions. With plenty of water there would be no difficulty felt in the matter.\(^{43}\)

The Flag Officer wanted very much to take Wilmington, but his absence from the operations off the Cape Fear did not help his cause. He probably stayed at Hampton Roads in order to try and persuade Welles to accept his views of certain points concerning the operation.

The operation was not running smoothly because three opinions came from three different locales, Wilmington, Hampton Roads, and Washington, D. C., causing confusion and unwarranted delays. Gideon Welles wanted to be positive there would be a depth of water to get the ironclads across the bars before final plans were made. The Naval Secretary had stated that if not enough water was found at Wilmington that the Montauk and Passaic were to be sent to Port Royal. General Foster had not been given a go-ahead on any troop movements, and without his forces a naval

\(^{43}\)Samuel Lee to Gideon Welles, December 24, 1862, ORN I, VIII, 317-318.
attack would more than likely be too weak to contend with the Confederate defenses.\textsuperscript{44}

General Foster, on the twenty-sixth of December, 1862, made arrangements for the transportation of twelve thousand troops with supplies from New Bern to Wilmington. Foster said that he could move on January 5 with twenty thousand troops against Wilmington. The Confederacy could put troops in Wilmington in a day by rail from either Richmond or Charleston. In this instance the navy would find it hard to support the army, for they did not have control of either entrance of the Cape Fear River from which relief could be landed.\textsuperscript{45}

As December, 1862, came to a close the project to take Wilmington seemed more impossible than ever. The draft of the vessels did not allow them to go over the New Inlet bar. The only remaining prospect would be the hope that the obstructions at Fort Caswell were floating, thus possible to remove. If so, then an attack might have been attempted. Lee stated, "The coast survey charts furnish sufficient data, irrespective of the unreliable night soundings, . . . for deciding in the affirmative question as to the possibility of the Passaic and Monitor entering Cape Fear River."\textsuperscript{46} Welles responded that Lee's information was "founded upon charts and not surveys, the Department will give no orders until it is positively known about the bars."\textsuperscript{47}

\textsuperscript{44}Gideon Welles to Samuel Lee, December 26, 1862, \textit{CRN I}, VIII, 323.

\textsuperscript{45}Samuel Lee to Gideon Welles, December 26, 1862, \textit{CRN I}, VIII, 320-321.

\textsuperscript{46}Samuel Lee to Gideon Welles, December 28, 1862, \textit{CRN I}, VIII, 325.

\textsuperscript{47}Gideon Welles to Samuel Lee, December 30, 1862, \textit{CRN I}, VIII, 337.
On December 31, the Monitor foundered in a gale off Cape Hatteras ending Lee's hopes for an attack at Wilmington. Assistant Secretary of the Navy Fox commented, "We gave him the Passaic and the old monitor, which unfortunately sank, breaking up the whole affair."\(^4\)\(^8\) The navy probably had intended to attempt going over Western Bar with the Monitor and if this succeeded then to try the other two ironclads. The Monitor thus was the navy's only hope in the attack at Wilmington because of her draft (ten feet four inches), which made her the least deep drafted of the three ironclads. Without the Monitor the attack force would be weakened by one third, making an attack not feasible. Without the navy's support the army objected to such a move. Welles wrote in his diary, "It is best, therefore, to push on to Charleston and strengthen Du Pont."\(^4\)\(^9\)

If the ironclads had been chosen to run the batteries at Fort Caswell it probably would have ended in a disaster for the navy. Two years later, after Caswell had been abandoned, Rear Admiral Porter noted: "We were forty-eight hours getting gunboats of light draft over the first bar . . . three days were consumed in getting the gunboats over the rips and one of them is stuck there still . . . not a gunboat would have been left had they attempted to run the batteries."\(^5\)\(^0\)

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\(^4\)\(^8\) Samuel Lee to Gideon Welles, January 3, 1863, ORN I, VIII, 340, passim; Gustavus Fox to Samuel Du Pont, March 11, 1863, Hayes, Du Pont, II, 486.

\(^4\)\(^9\) Beale, Welles Diary, January 5, 1863, I, 216.

\(^5\)\(^0\) David Porter to Gideon Welles, January 22, 1865, ORN I, XI, 269-270.
General Foster observing that the planned attack would probably be cancelled wrote a letter dated January 4, 1863, to Rear Admiral Lee giving a number of reasons for not being able to attack Wilmington from New Bern as they had planned. With his withdrawal of support the proposed attack fell through completely. Foster did not think that a naval attack alone would be effective because warships could not pass the bar at New Inlet in order to attack the rear of Fort Fisher. Foster also did not think a land attack would be successful. Foster thought the diversion that the navy was to perform at Fort Fisher would not work owing to the navy's inability to cross the bar, making it possible for the enemy to detach troops to aid in this defense. The time consumed in a march to Wilmington would take seven days, adequate time for the Confederates to draw men from Charleston and Savannah. Foster was concerned about logistical support because the question of whether or not vessels could get into Masonboro Inlet, supposedly defended by batteries. He also worried about landing supplies in a narrow channel with poor landing facilities and thought this supply route would be too long and exposed. However Foster's main objection was the inability to get the ironclads into the river. He believed that without the cooperation of the ironclads, a much larger force would be needed.51

General Foster presented an alternative for an attack. He wanted to make Fort Caswell the first point of attack. The ironclads would attack from the channel, while his forces landed on Oak Island. These troops would besiege the fort while another portion of his troops landed

51 John Foster to Samuel Lee, January 4, 1863, ORN I, VIII, 399-400.
on Smith's Island. The troops which landed on Smith's Island would erect a battery to cut off supplies trying to reach Fort Caswell.\footnote{John Foster to Samuel Lee, January 4, 1863, ORN I, VIII, 399-400.}

The abandonment of the project to take Wilmington did not mean that all had been forgotten in Washington. Immediately after the decision to abandon the attack, Gideon Welles promised Lee several vessels of the Patapsco and Keokuk type, which had a light draft and carried two 11-inch guns. These vessels would be ready in a month and Lee could use them for an attack if there were any chance of getting them into the Cape Fear. Welles wanted a more thorough examination of the inlets above and below in case the army forces chose to make a landing there at a later date. Welles did not want to risk the only ironclads he had on Wilmington, but victories at Charleston, Savannah or Mobile "would lead the Department to hazard more at Wilmington than would be judicious at the present time."\footnote{Gideon Welles to Samuel Lee, January 13, 1863, ORN I, VIII, 420.}

During February, 1863, the Navy Department continued to promise Lee more monitors. Assistant Secretary of the Navy Fox claimed that Lee could take the new ironclads the Keokuk (four 11-inch guns) drawing nine feet, the Catskill and probably the Nantucket because the navy could "afford to take more risks at Wilmington than would have been advisable at first."\footnote{Gustavus Fox to Samuel Lee, February 12, 1863, ORN I, VIII, 383.} Fox informed Lee in mid-February that five ironclads, the Catskill, Sangamon, Lehigh, Nantucket, and Keokuk would be provided for any future expedition against Wilmington. The Catskill
was of light draft, but the other four were of the same class as the Passaic and Montauk. In the event any ironclads were sent to the Cape Fear, Lee wanted an Ericsson raft for each so that they could be anchored safely under the shoals on the Western Bar side.55

After the abandonment of the proposed attack on Wilmington by the Navy Department and the subsequent transfer of vessels to Charleston, the defenses around Wilmington and Smithville were strengthened by Confederate forces. Because of this move by the Confederacy, in April the attention of the department turned from the inlets to Smith's Island. The Confederacy had begun to fortify the west end of the island causing some concern within the Navy Department. The navy thus made plans to attack Smith's Island before the Confederate fortifications became too awesome to overcome.56

The plan to capture Smith's Island met the "approbation" of the department provided that the army would lend the proper force. General Halleck, Lincoln's general-in-chief, promised to suggest to General Foster that he assist in any way he could. Foster estimated he would need ten thousand troops, and siege artillery to dislodge the Confederates. Foster agreed to make an attack but all his force was in South Carolina and many of his enlistments were about to expire. The first of May this plan faltered when Welles wrote to Lee that Major General Halleck found it impossible to reinforce Foster and that it would be a naval

55 Gustavus Fox to Samuel Lee, February 12, 1863, ORN I, VIII, 383; Samuel Lee to Gideon Welles, February 26, 1863, ORN I, VIII, 575.

56 Samuel Lee to Gideon Welles, March 30, 1863, ORN I, VIII, 635; A. Ludlow Case to Samuel Lee, May 23, 1863, ORN I, IX, 50.
The inability of the army to cooperate struck down another move toward Wilmington. Lee commented:

"... I do not think that "a purely naval attack can succeed in getting possession of either or both entrances to Wilmington."

Apart from the strength and extent of defenses now there, the difficulties of attack and the shoalness of the water on the bars and in the entrances to Cape Fear River make the difficulty greater at Wilmington than at Charleston.

My judgement is that ... the entrances can only be taken by powerful military cooperation."

From May to September, 1864, two more proposals were made to attack Wilmington. Both lacked intensity and preparations, and therefore were little more than suggestions. In June, 1864, Colonel James Jourdan, the commander of the sub-district of Beaufort, made a reconnaissance of the Fort Fisher batteries. He was planning a sneak attack on Fort Fisher. The plan called for the use of twelve hundred men which never materialized beyond the planning stages. Jourdan went aboard the Niphon which steamed down the coast past the batteries just outside of their range to draw their fire. John C. Howell of the Nereus commented about the act: "It was a dashing looking affair, altho' tolerably safe, but in a military point of view under the circumstances, I think ill judged."

These plans were not carried out because the Navy Department was considering a larger operation against the forts at the entrances to the Cape Fear which culminated in their eventual capture.

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57 Samuel Lee to Gideon Welles, May 28, 1863, ORN I, IX, 49; Gideon Welles to Samuel Lee, April 28, 1863, ORN I, VIII, 830-831; John Foster to Samuel Lee, April 25, 1863, ORN I, VIII, 826; Gideon Welles to Samuel Lee, May 1, 1863, ORN I, VIII, 834.

58 Samuel Lee to Gideon Welles, May 10, 1863, ORN I, IX, 14.

Even though the navy had under consideration an attack on the Cape Fear forts, they still did not have any support from the army. By October, 1864, the department had 150 vessels at Hampton Roads and Beaufort waiting for General Grant to release troops for an operation. Grant was hesitant to release the troops necessary for an attack and set as a condition the replacement of Rear Admiral Lee, who in his opinion was too conservative. Lee however had a thorough knowledge of the area. Rear Admiral David Farragut, who was chosen to command, thought it was unwise to remove Lee. Farragut was in poor physical condition and declined the command. Rear Admiral Du Pont and John Dalh gren were both considered but passed over in favor of Rear Admiral David Dixon Porter who was young and brash. 60

While Welles had been assembling a fleet, General Benjamin Butler who was chosen as the army's commander of the expedition came up with the idea of a powder ship. His plan was to destroy Fort Fisher by exploding a ship loaded with gunpowder on the bar near the fort. The explosion was to level the fort and kill all its inhabitants. The Louisiana, an old worthless steamer, was chosen to carry the powder. 61

Grant assigned sixty-five hundred troops to the expedition which sailed from Hampton Roads on December 13, 1864, and arrived off Fort Fisher on the fifteenth. Bad weather prohibited the transports from

60Gideon Welles to Abraham Lincoln, October 28, 1864, ORN I, XI, 3; Barrett, The Civil War In North Carolina, 262-263; Reed, Combined Operations, 332-333.

anchoring off Wilmington so they turned back to Beaufort to ride out the storm. By December 23 the sea had subsided enough to explode the powder boat. The powder boat was towed to within three hundred yards of the beach where it ran aground. The crew then set the mechanisms designed to explode the powder. The explosion occurred at about 1:40 A.M. Rather than one large explosion there were three distinct blasts and many minor ones as powder bags were thrown into the air.\footnote{62}{Price and Sturgill, "Shock and Assault at Fort Fisher," 31-36; Barrett, \textit{The Civil War In North Carolina}, 266-267.}

This explosion had had no effect on the fort so Rear Admiral Porter on December 24 at 11:30 A.M. began the bombardment of Fort Fisher with over six hundred guns. Butler's fleet did not arrive until it was too late to land that day. At 10:30 A.M. on Christmas day Porter again commenced the bombardment. By 4:00 P.M. Butler's men, who had now landed, were within fifty yards of Fort Fisher. Instead of advancing Butler chose to withdraw in the face of overwhelming odds. The powder boat had failed to damage the fort and likewise the naval bombardment had done very little damage.\footnote{63}{Barrett, \textit{The Civil War In North Carolina}, 268-269.}

After the first failure to capture Fort Fisher, General Grant began to see the strategic importance of Wilmington. He began to see that Wilmington would be the obvious point to supply his army in North Carolina because the Cape Fear was navigable to Fayetteville one hundred miles above Wilmington. This port now deserved a top priority to insure the safety of Sherman's army. Upon his decision to commence operations on Wilmington Grant selected Major General Alfred H. Terry
to replace Butler. Thus began a much more thorough campaign by both the army and navy to insure a capture. 64

On January 12, 1865, the immense federal fleet of about sixty vessels arrived off Fort Fisher. This fleet had the greatest firepower in naval history, 627 guns in fifty-nine vessels. The next day the warships began bombing the fort. Meanwhile about eight thousand troops under Terry's command were put ashore north of Fort Fisher and dug in and prepared to move toward the fort. 65

The bombardment by the vessels lasted day and night. The Confederate gunners used only a "slow and deliberate" firing to conserve ammunition. Colonel Lamb, the commander of the fort, wired to General Braxton Bragg to send reinforcements. Bragg sent eleven hundred men but only half the men reached the works. This gave Colonel Lamb only fifteen hundred men total inside the fort on the morning of the fifteenth. 66

On this morning, the fleet had not ceased firing. By noon every gun on the seaface of the fort had been destroyed except one columbiad. A naval brigade of about two thousand marines and sailors were landed on the beach north of the fort. A two-pronged assault was planned; the sailors and marines were going to assault the north-east salient while the army forces attacked the land face. At about 3:30 P.M. the bombardment stopped and the steam whistles of the fleet signaled the attack. The marines and sailors rushed towards the fort and were cut down by the

64 Reed, Combined Operations, 356-357.
full force of the forts infantry, two napoleon guns and one columbiad which poured grape and canister into their ranks. This murderous fire caused the naval column to become a disorganized mob as they bunched up behind the palisades. Many of the officers had been killed and observing their support faltering they retreated in disorder. As the naval charge had failed the army column had gained several traverses on the Confederates left. The marines and sailors, by distracting the defenders, allowed the infantry to gain this foothold. There was fierce fighting from traverse to traverse. The Union infantry's success was made possible by close naval support until it became too dark. Later in the battle the infantry was reinforced by the remnants of the naval attack. At about 10:00 P.M. Major James Reilly who now commanded the Confederate garrison because both Colonel Lamb and General Whiting had been wounded, surrendered to the Union forces.67

With the capture of Fort Fisher, the port of Wilmington was sealed forever to blockade-runners. For three and one-half years the Union navy had discussed and planned for the capture of the Cape Fear inlets, but each time the navy chose objectives they thought more important or abandoned the projects because they could not get any cooperation from the army. The failure to capture this port earlier in the war caused the Union blockade to suffer greatly. It became manifest for the Navy Department to search during almost the entire war for tactics which would effectively seal this port.

When Lincoln established the blockade of the southern states he had no idea of the unprecedented scope of this undertaking. The coastline from the Potomac to the Rio Grande stretched 3,549 miles and contained 189 ports. To carry out the almost impossible task of sealing off this huge area, the Navy Department had neither the vessels nor the personnel. Of equal seriousness was the lack of reliable and readily available geographic knowledge of this vast coastline.

To aid the Navy Department in accumulating the necessary geographic information, to develop blockade strategy, and to reorganize the navy for the job facing it, Secretary of the Navy Gideon Welles created several temporary boards and agencies. Perhaps the most important of these boards was the Commission of Conference which is generally referred to as the Blockade Strategy Board.

The idea for the creation of this board originated with Professor Alexander Dallas Bache, the superintendent of the United States Coast Survey. Organized on the twenty-seventh of June, 1861, the board consisted of John G. Barnard, Chief Engineer of the Army Department of Washington; Captain Charles H. Davis of the United States Navy who acted as recorder and secretary; Professor Alexander Bache; and Captain Samuel Francis Du Pont who acted as chairman.  

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1 RSN 1863, III; Spears, The History of Our Navy, IV, 30.
2 Hayss, Du Pont, I, 85-86.
The Strategy Board met frequently from July to September preparing six major reports and four supplementary ones. By collecting hydrographic, topographic, and geographic information they developed blockade strategy and devised methods to render the blockade more effective. Among the board's first duties was to accumulate information necessary to establish logistical support for naval operations on the Atlantic coast of the southern states. With this information the board recommended points in South Carolina, Georgia, and Florida to be seized as coaling stations and naval bases. The board also prepared a general guide for all blockading operations which was closely followed throughout the war. To increase the efficiency of the blockade the board recommended the reorganization of naval squadrons assigned to blockade duty. There had been three squadrons; the Atlantic, Gulf, and Home squadrons. The board proposed to abolish the Home Squadron and to divide the Atlantic Squadron into the North Atlantic and South Atlantic squadrons, and the Gulf Squadron into the East Gulf and West Gulf squadrons.³

Geographic information contained in these reports was taken chiefly from the coast survey while the strategy and organization changes were hammered out after thorough discussion and debate among the board members. The recommendations were then passed on for further discussion and modification by the President, Cabinet, and Chief of the Army General Winfield Scott.⁴

³Hayes, Du Pont, I, lxviii-ixix; Paullin, Naval Administration, 263-264
⁴Hayes, Du Pont, I, lxviii-ixix; Paullin, Naval Administration, 263-264.
The board's proceedings were strictly confidential and it was not intended that these reports be made public. However, as early as July, 1861, accounts of the deliberations began to appear in northern newspapers. Many times both the northern people and the leaders of the Confederacy became aware of the Navy Department's plans almost as soon as they had been developed.  

To close many of the southern harbors the blockade board thought that perhaps the quickest, cheapest, and most obvious way was to sink hulks of vessels laden with stone in the channels. The attempt of the United States Navy to block the channels by this method brought forth protests from Europe. The British Foreign Office called this method of blockade a "measure of revenge, and irremediable injury against an enemy." A French newspaper called it inhuman and "an act worthy of the dark ages." Secretary of State William H. Seward once again faced the problem of soothing the European nations. He defended this action by calling it a temporary military measure adopted to aid the blockade but not to permanently injure the harbors. He also claimed there had never been any plan to sink vessels in the main channels only the lesser ones.

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5Paullin, Naval Administration, 263-264; Charles Henry Davis, Life of Charles Henry Davis, Rear Admiral 1807-1877 (New York, 1899), 134, hereinafter cited as Davis, Life of Charles Henry Davis.


8Glass, International Law, 462.
There were also strong objections to the use of sunken hulks by Union naval officers on the basis of ineffectiveness. Flag Officer Silas Stringham who commanded the Atlantic Blockading Squadron believed that these obstructions would be of "very temporary and slight service" owing to the constant shifting of the channel entrances. These objections by Stringham proved to be well founded. Although attempts were made to close several southern ports by sinking stone-laden vessels, in no case were they successful.

The Strategy Board realized early in the war Wilmington's importance and considered obstructing New Inlet on July 13, 1861. In the discussion of this project it was clear that the board members thought that the Confederacy had made a mistake by not fortifying the inlet. Guns located there could be turned either on the river, the ocean, or on Smith's Island, thus creating an easily defended inlet for use by blockade-runners. This matter was again discussed by the board on July 16. It was learned at this time that, strangely enough, the Confederate leaders, overlooking the potential of this inlet were considering closing the inlet themselves and indeed may have done so. Davis wrote in the minutes of the board: "New Inlet is said to have been closed by the people of Wilmington; if not its obstruction can easily be effected."  

It is not certain whether the Confederacy attempted to close New Inlet or not. If so, the swift currents in the inlet swiftly swept

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9 Silas H. Stringham to Gideon Welles, July 22, 1861, ORN I, VI, 24.
10 Blockade Strategy Board Minutes, July 13, 16, 1861, R.G. 45, N.A.
away the obstructions as Stringham had foreseen. By the fall of 1861, it was clear that the inlet had not been closed, and therefore if the inlet was to be obstructed it would have to be done by the Union navy. At a meeting on September 2, 1861, the Strategy Board recommended a careful reconnaissance of the inlet to determine the extent of the defenses, the conditions of the channel, and the possibility of closing it. Secretary of the Navy Gideon Welles approved of this recommendation and authorized Flag Officer Stringham to proceed with the reconnaissance.11

The Union navy did not have to obstruct the channel because the Confederate authorities did it for them, to prevent Union warships from entering the unguarded inlet. During the middle of December, 1861, the tug Uncle Ben towed to New Inlet four large heavy diamond-shaped wooden cribs about forty or fifty feet wide and twenty feet deep. These cribs were moored on the shoal in the channel close together. Here three of the cribs were filled with rocks and sunk in the channel on the northwestern corner of Zeek's Island. The fourth crib was to be sunk at a later date if needed. Before the cribs were put in place a small steam tug had frequently ventured from New Inlet. Now that the obstructions were down, the vessel had only been seen coming from the Western Bar Inlet. This furnishes evidence that the channel was at least temporarily obstructed. Commander Daniel Braine of the Monticello remarked: "I know that it is an impossibility for her to pass, or any other vessel drawing 9 feet of water."12 If New Inlet had been effectively closed it

11Gideon Welles to Silas H. Stringham, September 3, 1861, ORN I, VI, 162.

12Daniel L. Braine to Oliver S. Glisson, January 5, 1862, ORN I, VI, 499.
lasted only a short time. Within weeks the cribs were swept away by the swift currents, making it necessary for the Confederate authorities to defend the inlet and the Union navy to blockade it. The board also considered attempting to obstruct the inlet at Western Bar, but quickly dismissed the idea. In addition to the geographic problems the presence of Fort Caswell would make the placement of obstructions difficult if not impossible.\textsuperscript{13}

The primary course of action of the early blockade was to "close the principle ports and with the remaining vessels . . . to perform coast guard service."\textsuperscript{11} The navy performed precisely this type of service at Wilmington during the early months of the war. Vessels cruised up and down the coast, with no particular station. For several months only one vessel remained stationed off Wilmington. This blockader constantly fought the problems of geography. The two inlets located forty to fifty miles apart by sea, made it necessary for the vessel to constantly shift from one inlet to the other, and even then very few blockade-runners were apprehended. The problem became even more difficult when the Confederates began hoisting flags on the lighthouse at night. To confuse the enemy, the Penguin, a vessel stationed at Wilmington, tried to conceal itself in the daytime and run at night, frequently changing her position. By October, 1861, this shifting of

\textsuperscript{13} Blockade Strategy Board Minutes, July 16, 1861, R.G. 45, N.A.

\textsuperscript{11} Gideon Welles to Silas H. Stringham, July 5, 1861, ORN I, V, 702.
position became less necessary when three vessels were stationed off the dual inlets. 15

Neither Flag Officer Stringham nor his replacement, Flag Officer Louis M. Goldsborough, while in command of the squadron developed any special tactical gambits for the vessels off Wilmington. The Union navy early in the war haphazardly employed vessels along the whole coast. As Wilmington's strategical importance became more apparent the navy resorted to more tactical innovations. The blockade-runners evolved to fast, sleek vessels which forced the Union navy to specialize their vessels in order to keep an effective blockade. The Union vessels not only adapted to the use of faster vessels but adapted vessels to specific functions which best suited the vessels capabilities. This specialization though came only after the assignment of a large number of vessels to the blockade at Wilmington.

Flag Officer Stringham felt in May, 1861, that in order to make the blockade of the Atlantic coast effective he would need twelve to fifteen more vessels, and four or five additional ones for patrolling the coast of North Carolina. He made this statement at a time when he did not have a single vessel stationed at Wilmington. Welles worried over the early laxity of the blockade and commented to Stringham, "I am aware of the difficulty attending a blockade of these ports, even if you had a sufficient supply of vessels, but cannot

15 John W. Livingston to Silas H. Stringham, August 15, 1861, ORN I, VI, 85-86; Louis M. Goldsborough to Gideon Welles, October 3, 1861, ORN I, VI, 282.
Wilmington or Beaufort be formally blockaded ... by such force as
you have?"16

Stringham never had enough vessels to spare the force requisite
for an effective blockade at Wilmington. He also did not have the right
kind of vessels. The earliest vessels stationed at Wilmington were
sailing vessels. Flag Officer Goldsborough, Stringham's replacement
realized the importance of replacing these with fast, light drafted,
properly armed steamers. Though he realized that these steamers had
their own special logistical problems, he considered sailing vessels
"of poor account—next to good for nothing on such a service."17

Another early problem at Wilmington stemmed from the lack of
long-range guns on board the blockaders. Long-range ordnance was
necessary to drive blockade-runners ashore or cripple them more easily.
But the largest problem was the result of the non-permanency of the
blockader's stations. Vessels were shifted from station to station
performing a patrol rather than a blockade. The vessels were also
frequently absent from their station in order to replenish supplies and
fuel.18

As late as February, 1862, only three vessels were stationed at the
two inlets, and at times there would be one blockader to handle both

16 Silas Stringham to Gideon Welles, May 24, 1861, ORN I, V, 664-
665; Gideon Welles to Silas Stringham, August 10, 1861, ORN I, VI, 71.

17 Louis M. Goldsborough to Gustavus V. Fox, March 16, 1862,
Thompson and Wainwright, Fox Correspondence, I, 249; Louis M. Goldsborough
to Gideon Welles, October 4, 1861, ORN I, VI, 286.

18 Oliver S. Glisson to Louis Goldsborough, December 20, 1861, ORN I,
VI, 483-484; Louis Goldsborough to William A. Parker, March 30, 1862,
ORN I, VII, 180.
inlets, the other forced to return to Hampton Roads for coal. This ineffectiveness of the Union navy caused Lord John Russel, the British Foreign Minister, to question whether the Union was able to maintain a legal blockade. On February 5, 1862, Russell wrote:

Her Majesty's Government have had under their consideration the state of the blockade of the ports of Charleston and Wilmington. It appears from the reports received from her Majesty's naval officers that although a sufficient force is stationed off those ports, various ships have successfully eluded the blockade; a question might be raised as to whether such a blockade should be considered effective.19

By June, 1862, Goldsborough had increased the number of steam vessels stationed at Wilmington to nine. Four vessels were assigned on each side of the shoals with one away for coal. In order to curtail the problem of absenteeism, Goldsborough asked Commander Oliver Glisson to never allow more than one vessel under his command away for coal or stores, which was not logistically possible.20

Goldsborough was never able to assign enough vessels to Wilmington for the formation of a complicated tactical plan. He also did not have the different types of vessels to enable him to employ them on the parts of the coast for which they were most suited. The commanders at Wilmington were forced to operate with the vessels which could be assigned.


20Louis Goldsborough to Oliver S. Glisson, July 20, 1862, CRN I, VII, 582; Louis Goldsborough to Gustavus V. Fox, June 16, 1862, Thompson and Wainwright, Fox Correspondence, I, 289; Oliver Glisson to Louis Goldsborough, August 24, 1862, CRN I, VII, 673.
Rear Admiral Samuel Lee took command of the squadron on September 2, 1862, and immediately found, like the preceding commander, that in many cases the vessels were not suited to the blockade. The only vessels at Wilmington which had strong batteries were the Octorora, and perhaps the Monticello, and Penobscot. The steamers lay at anchor all day, and at night, five miles from the inlet and two miles from each other. Lee immediately instructed the steamers to shift their berths between evening and morning twilight to a position as close to the bar as possible. He also instructed that one vessel act as a picket and the other ships support this vessel. 21

As late as October, 1862, vessels were lying within two and one-half miles of the forts at the two inlets. The Confederates had mounted their longest range ordnance at Fort Fisher rather than at Fort Caswell. Concerned with the closeness of the Union vessels at Fort Caswell, Colonel William Lamb, Commandant of Fort Fisher, took a detachment of men from Fort Fisher along with two siege guns which he placed overnight at Fort Caswell. The next day the Union vessels were driven away from the fort. This long-range ordnance enabled the Confederates to keep the Union vessels further away from the fort for the duration of the war, which hurt the effectiveness of the blockade. 22

21 Gideon Welles to Samuel P. Lee, September 2, 1862, OEN I, VII, 695; Samuel Lee to Gideon Welles, September 8, 1862, Lee Collection, L.C.M.; Samuel Lee to Gustavus H. Scott, September 21, 1862, Lee Collection, L.C.M.

22 David to Miss Kate, October 18, 1862, Catherine Buie Collection, D.U.M.C.; Gustavus H. Scott to Samuel P. Lee, October 11, 1862, Lee Collection, L.C.M.; Friend to Miss Kate, September 18, 1862, Catherine Buie Collection, D.U.M.C.
The disposition of vessels remained a problem during the entire conflict. Commander Gustavus Scott, the senior officer of the blockading fleet at Wilmington in October, 1862, did not please Lee in regard to the disposition of the vessels off the Cape Fear. Lee complained: "I cannot think the positions occupied by the vessels off Wilmington are (as you say) the best in view of the Kate's having twice recently run the blockade and considering the vessels have been lying from five to seven miles off."\(^{23}\) Scott excused the actions of his command by blaming the lack of vessels and their lack of speed. He stated:

Vessels of better speed I hope may be sent here, at New Inlet there are three, one of those at Topsail Inlet and one other absent for coal leaves a single vessel to blockade New Inlet. We are all anxious to make the blockade efficient and feel sensibly the necessity of additional force.\(^{24}\)

Because of his dissatisfaction with Scott's performance, Lee took advantage of the preparation for a proposed attack on Wilmington in December, 1862, to replace him with an old friend, Captain Benjamin Sands. Sands encountered the same problems which Scott had faced and he was no more effective than his predecessors.\(^{25}\)

The speed and disposition of vessels had not been Scott's only problem. There were not enough vessels at Wilmington and especially New Inlet to blockade this port effectively. Sands quickly found that

\(^{23}\)Samuel P. Lee to Gustavus H. Scott, October 5, 1862, Lee Collection, L.C.M.

\(^{24}\)Gustavus Scott to Samuel Lee, November 12, 1862, Lee Collection, L.C.M.

\(^{25}\)Samuel Lee to Benjamin F. Sands, December 8, 1862, ORN I, VIII, 264-265.
he would need more vessels or cover less territory. The Daylight had cruised to New Inlet every afternoon and then coasted back down the coast in the morning to communicate with the senior officer. With the lack of vessels, the Daylight could not be spared in this capacity and was thus limited only as far as Masonboro Inlet.  

The ineffectiveness of the Union navy in the prevention of Confederate blockade-runners from reaching Wilmington exasperated the blockaders. Captain Sands expressed this frustration shortly after he assumed command when he wrote:

It is greatly to our mortification, after all our watchfulness to prevent it, that the enemy succeed in eluding us. None can be more vigilant than we are; the officers of the watch, with a quartermaster always on "bridge," lookouts on each bow, gangway and on quarter. For myself I never pretend to turn in at night, and am frequently on deck during the night inspecting the lookouts in person, taking what sleep I can get in my clothes, ready for a moments call—and I believe it is the same way for all commanding officers.

Sands blamed his problems on poor visibility on the dark nights when "vessels cannot be seen half a miles distance; and under favorable circumstances in the absence of the moonlight one cannot see a vessel a mile off." In order to increase vigilance aboard the blockading vessels rewards were sometimes offered to the man who first sighted a blockade-runner which was subsequently caught and condemned.

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26Samuel Lee to Gustavus Scott, October 10, 1862, Lee Collection, L.C.M.; William H. Macon to Benjamin Sands, December 19, 1862, Lee Collection, L.C.M.

27Benjamin Sands to Samuel Lee, December 23, 1862, Lee Collection, L.C.M.

At New Inlet Sands employed one vessel on the bar, and another slightly further west nearer the shore to cut off vessels running up the coast. A third vessel took its watch at a seaward approach. All vessels took their positions after dark, and left them before daylight in order not to be seen by the shore batteries. Lee thought the force at New Inlet should be stronger and ordered Sands to divide the force more evenly between the two inlets. Between December 16, 1862, and January 15, 1863, the number of vessels at Wilmington was increased from eight to fifteen. Even with this size fleet only six or eight vessels were available for blockade duty, the others being away for repairs or coaling. The reason for this higher rate of absenteeism was because the percentage of steam vessels was now higher. The Union vessels cruised more, thus using more coal and requiring more repairs.29

Lee instructed Captain Sands to assign one steamer and one schooner to the inlets above and below the Cape Fear for a "steady blockade." Vessels were not to waste their fuel by running about unnecessarily in the daylight or delay their visits to Beaufort.30

A particular concern throughout the war for the Union navy was the use of Wilmington by commerce raiders. Wilmington became a haven for these vessels as other ports were closed. Famed raiders such as the Tallahasee, Chickamauga, and Nashville frequented Wilmington's harbor. The people of Wilmington and the Confederate military leaders were

29 Benjamin Sands to Samuel Lee, December 23, 1862, Lee Collection, L.C.M.

30 Samuel Lee to Benjamin Sands, December 29, 1862, Lee Collection, L.C.M.
afraid that their presence would lead to an increased vigilance on the part of the blockading squadron. General Robert E. Lee even questioned the importance of these raiders at Wilmington and thought they should be sent elsewhere to divert the United States Navy's attention. In spite of the fears of the Confederate leaders, the presence of these vessels did not result in the Union navy drastically increasing the number of vessels at Wilmington. Increases at this port resulted from an excess elsewhere. Vessels though, were pulled from their stations in order to pursue these raiders, thus greatly reducing the efficiency of the blockade.\footnote{Charles Green to Gideon Welles, May 24, 1862, \textit{ORN I, VII}, 265-266; Wilmington Journal, September 20, 21, 1864; Robert E. Lee to James A. Seddon, September 22, 1863, \textit{ORN I, X}, 747; William H. C. Whiting to Zebulon B. Vance, September 26, 1864, \textit{ORN I, X}, 750.}

The sinking of the \textit{Hatteras} by the \textit{C. S. S. Alabama} off Galveston particularly worried Captain Sands and led him to question the adequacy of the type of vessels assigned to blockade duty in dealing with the problem of the raider. Captain Sands complained that the vessels on duty at Wilmington were "not a bit better than was the \textit{Hatteras} and could not be expected to make a better fight with such a foe."\footnote{Benjamin Sands to Samuel Lee, February 10, 1863, \textit{ORN I, VIII}, 518-519.} Sands found it necessary to issue an order that when the blockaders at Wilmington sighted a strange vessel, two ships were to be dispatched in order to protect each other. There were not enough vessels at the inlets to operate in this manner and still maintain an effective blockade. When two vessels were dispatched on a chase, it left only one...
vessel guarding the inlet. To deal with this problem Sands suggested there be an outer line of blockaders to chase and board blockade-runners on the approaches to Wilmington. This idea was a good one and would be implemented at a later date.\textsuperscript{33}

By February, 1863, the Union navy had established a more thorough coverage of the coast south of Western Bar Inlet. Captain Sands kept a sailing schooner stationed at Little River Inlet and a steamer at Shallotte Inlet; the latter also helping the schooner at Little River Inlet when necessary. Commander A. Ludlow Case of the \textit{Iroquois} and Captain Sands both wrote to Lee requesting more ships. Case agreed with Sand's earlier recommendation that their chief hope of success to prevent the violation of the blockade would be in finding the blockade-runners further away from the inlets. He thought that an inshore and offshore blockade would be the most effective way in doing this.\textsuperscript{34} But it was quickly apparent the blockading fleet was spread too thin and that additional vessels were badly needed both along this southern coastal area and further north at the main inlets off Wilmington.

Communications was a major problem at Wilmington. In March, 1863, a total of fourteen vessels were divided between the two sides of the shoals with some being stationed at the lesser inlets north and south. Rear Admiral Lee concluded that because of the communication problem created by Frying Pan Shoals dividing the two major inlets there was a

\textsuperscript{33}Benjamin Sands to Samuel Lee, February 10, 1863, ORN I, VIII, 518-519.

\textsuperscript{34}Samuel Lee to Benjamin Sands, February 2, 1863, ORN I, VIII, 496; Benjamin Sands to Samuel Lee, February 17, 1863, ORN I, VIII, 532-533; A. Ludlow Case to Samuel Lee, February 21, 1863, ORN I, VIII, 547.
necessity to have two senior officers rather than one. Lee appointed Captain A. Ludlow Case to be the senior officer of the New Inlet side and placed Captain Sands in charge of the vessels at Western Bar.35

After the division of the command, Flag Officer Lee was critical of Case's disposition of vessels off New Inlet. Case reported that the Mount Vernon had been stationed off New Inlet, the Daylight to the eastward, and the Iroquois a little to the southward. Acting Volunteer Lieutenant James Trathen of the Mount Vernon reported to Lee that his vessel and the Daylight were from one half to three fourths of a mile apart. Lee believed that this was an ineffectual positioning of the ships. On March 19, 1863, he wrote to Case: "This position of the vessels in a line eastward of the entrances, virtually reduced the blockading force to one vessel. This sort of grouping is objectionable, especially at night."36

Lee was also critical of utilization of boats for picket duty. Small boats had been used for this duty at both New Inlet and Western Bar. Lee ordered both Case and Sands to cease this practice and hereafter to use steamers for that service. In Lee's opinion a boat giving signals would either scare away the violator or give warning too late for a steamer to make a capture. Lee thought that the use of picket boats also caused "temptation to a dangerous relaxation of vigilance on board the steamers."37

36James Trathen to A. Ludlow Case, February 21, 1863, ORN I, VIII, 547-548; Samuel Lee to A. Ludlow Case, March 10, 1863, ORN I, VIII, 594-595.
37Samuel P. Lee to A. Ludlow Case, March 10, 1863, ORN I, VIII, 594-595; Samuel Lee to Benjamin Sands, March 7, 1863, ORN I, VIII, 589-590.
In March, 1863, Commander Case requested a tug be sent to New Inlet. The blockade needed a small fast steamer which could move around at night without being detected. The larger ships proved to be troublesome because their rigging could be seen from shore, making them a target for the long-ranged guns of the forts. Also these vessels could be seen more easily by blockade-runners who could then steer to avoid them. Lee responded to this request by sending the steam tug _Violet_ to Wilmington. This ship became the prototype of a class of vessels usually used as bar tenders. These vessels were small, mastless steamers, with good speed and light armament. The bar tenders usually took their stations near the bars and inlets, and were of "infinite service" in capturing or driving vessels ashore and in operating in depths of water that larger vessels could not. The bar tenders usually could not carry large amounts of coal, but could easily be refueled from the larger vessels.  

On April 12, after the _Violet_ had been stationed at Wilmington for only about a month she discovered a blockade-runner, commenced the chase, and opened fire with her guns. The chase ended when both the starboard bow and stern guns became inoperative because the bolts holding the guns to the deck tore loose. This damage was quickly repaired without the vessel being taken off the blockade.

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38 A. Ludlow Case to Samuel Lee, March 10, 1863, _ORN I, VIII_, 595-596; Samuel Lee to John W. Bennett, March 27, 1863, _ORN I, VIII_, 631; Charles S. Boggs to Samuel P. Lee, March 29, 1863, _ORN I, VIII_, 635; Benjamin Sands to Samuel P. Lee, October 19, 1863, _ORN I, IX_, 246-247.

39 John W. Bennett to Benjamin Sands, April 12, 1863, _ORN I, VIII_, 800-801.
The *Violet* at first anchored in four fathoms of water about one and a half miles from the beach, keeping her fires banked and twenty-five pounds of steam in her boilers. Lee instructed the *Violet* as well as other bar tenders to change their tactics. Instead of anchoring at night, they were to hold their positions by keeping under way, keeping a close watch on the bottom in order to keep from moving ahead or drifting. Flag Officer Lee thought a vessel at anchor would be too slow to start a chase, and risked losing her anchor. If it became necessary to anchor the bar tenders, Lee recommended the use of kedge anchors, even though the use of a kedge anchor would require extra hands at night in order to handle the anchor more quickly. Lee further warned these vessels not to make any noise by blowing off steam, but to let it escape gradually.40

In most cases the immediate disposition of the vessels was left up to the senior officer at each inlet who acted under general instructions from the squadron commander. Many changes were made in response to suggestions made by the captains of the ships on the blockade. On May 26, 1863, Captain Robert Forbes of the *Niphon* suggested that a vessel cruise on a thirty-mile arc from the inlets in order to meet blockade-runners before they were under the protective guns of the forts. Lee experimented with this idea, choosing the *Niphon* to cruise on this outside tract. Lee also suggested that the *Niphon* substitute her thirty-pound guns for lighter twenty-pounders in order to give the vessel greater speed. By November Captain Daniel B. Ridgely, the new senior officer at New Inlet, had his three fastest vessels cruising from thirty to seventy miles off-shore, each vessel cruising a line sixty miles long. This

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40 Samuel Lee to John W. Bennett, April 18, 1863, ORN I, VIII, 801-802.
outside operating and distance chasing was allowed only when a sufficient number of vessels were stationed at the inlets to prevent weakening of the blockade.\textsuperscript{41}

In August, 1863, an experimental vessel, the Shokoken was assigned to the blockade of Wilmington. The Shokoken, a large, fast, double-end ferry boat supposedly possessed many advantages to cope with the blockade of this area. Her main advantage being that of maneuverability at the bars. This advantage however, was off-set by other defects. Lieutenant William B. Cushing commanded the vessel during a gale and came to the conclusion that the Shokoken was not sufficiently stable to withstand the rough seas of this area. The vessel during a gale had been severely damaged and nearly sank.\textsuperscript{42} She was sent north for repairs and never returned.

On September 1, Rear Admiral Lee laid down general directives for the blockading vessels. He desired the vessels to conserve fuel by not moving around unnecessarily and yet they were to remain ready at all times to chase blockade-runners. Boats which the blockaders used for landing on the beaches were to be suitable for that purpose and these boats were to be provided with all the proper equipment and were to be commanded by skillful officers or petty officers. Vessels on the

\textsuperscript{41} Samuel Lee to A. Ludlow Case, May 26, 1863, Samuel Lee to Robert B. Forbes, May 26, 1863, Thompson and Wainwright, Fox Correspondence, II, 255, 257-258; Daniel B. Ridgely to Samuel Lee, November 5, 1863, ORN I, IX, 262-263; Samuel Lee to Commanding Officers, September 1, 1863, ORN I, IX, 188.

blockade were to carry spare anchors, cables, several sizes of hawsers, and double the usual amount of leads and leadlines along with good leadsmen. For navigational purposes, and to better estimate the most probable departure times of the blockade-runners, each vessel was to carry a deck board which would show accurate tables of high and low tides, moon rise and set, and the rising and setting of the sun. The officer of the deck had charge of these boards and a sketch of the shoreline, the positions of the vessels, prominent objects, the ship's anchorage, and a compass. 43

At first the vessels stationed off the Cape Fear did not lay at any particular position during the day. On the south side of the shoals, one officer noted: "]On] this side ... the vessels lie in a huddle, the officers visiting from one side to another to pass away the time the best way they can." 44 Lee put a stop to this practice by ordering the vessels not to lie huddled together, day or night, especially in thick weather. From this time forth there were specified day and night anchorages. Vessels were to weigh anchor one hour before sunset and be in their night positions by dark. The positions were to be determined by a light on one vessel known to all. 45

By October, 1863, the increase of the size of force on the New Inlet side had caused a shift of the blockade-runners to the south side

43 Samuel Lee to Commanding Officers, September 1, 1863, ORN I, IX, 187-189.

44 William Keeler to Anna Keeler, June 12, 1863, Daly, Aboard the U. S. S. Florida, 44.

45 Samuel P. Lee to Commanding Officers, September 1, 1863, ORN I, IX, 188-189.
of the shoals. Captain Sands realized this, and in Case's absence augmented the force of six vessels at the western bar and nine on the north side of the shoals. Lee thought that these two inlets needed thirty vessels, twenty at New Inlet and ten at the western bar. The lack of vessels kept Sands from using an outside cruiser. This deficiency permitted vessels to give chase only if they could gain upon the violator and the blockade did not become weak from the absence of the chasing blockader. In order to rectify the situation Sands directed each vessel going for coal to leave in the afternoon when possible and to steer south for fifty to sixty miles until daylight. This in effect put the vessels in the position where the blockade-runners usually were during this part of the day. This gave the blockade an outside blockader nearly every day. Sands also arranged the departures and course for the supply ship *New Berne* in the same manner.\textsuperscript{46}

By December, 1863, there were six primary stations for the blockading vessels at Wilmington, three at each inlet. On the New Inlet side the senior officer stationed his vessel directly off the inlet. A second vessel lay off Masonboro, and a third on the lower end of Smith's Island. On the Western Bar side one vessel lay directly off the bar, one off Lockwood's Polly Inlet, and the third lay at the end of Smith's Island. The secondary stations fell between the six and divided the space between them according to the number of vessels

present. The steamers which watched the bar anchored on one side of
the senior officer's steamer during the day, and a fast steamer was
anchored on the other side. At night this swift steamer would move
five miles out and cruise slowly.\footnote{samuel p. lee to senior and commanding officers, december 16, 1863, \textit{crn} i, ix, 355-358.}

The Sassacus and Pequot were added to the outside blockade in late
January, 1864. These vessels were to intercept inward bound blockade-
runners hovering off Cape Lookout. These blockaders were to be at a
point where blockade-runners were most likely to be at dawn, calcu-
lating this position by assuming a twelve knot speed. Commanders were
to report to the senior officer if their vessel proved inadequate for
the service. This positioning paid off for the Sassacus which destroyed
both the Wild Dayrell, and the Nutfield within four days during early
February.\footnote{samuel lee to commanding officers of sassacus and pequot, january 29, 1864, \textit{crn} i, ix, 413-419; samuel lee to gideon welles, february 15, 1864, \textit{crn} i, ix, 461-463.}

The Wilmington blockade faced a serious problem during the entire
war, from the constant change of local commanders. Rear Admiral Lee
complained to Assistant Secretary of the Navy Gustavus Fox: "It is
a grave mistake to make changes on blockade services. An officer
acquainted with the situation is of more account than one of equal
merit who is not."\footnote{samuel p. lee to gustavus v. fox, february 20, 1864, thompson and wainwright, \textit{fox correspondence}, ii, 276-277.} Not only were commanders changed too often, but
a shortage of regular naval officers plagued the whole squadron.
There were only about "two or three dozen, old and young" on the vessels at Wilmington.50

Besides all the red tape of the department, an inadequate command structure on board the ships hindered operations and efficiency. The watch officer who had charge of the deck had no power to act. The officer first had to report to the captain and wait for his orders. One officer commented: "The captain comes on deck, looks around, satisfies himself as to the correctness of the officer's report & makes up his mind what to do. All this takes time--& when a fast steamer is gliding by us, [we lose] precious time that cannot be recalled or made up for."51

In 1864, the blockade of Wilmington became more effective through the extended use of outside blockading vessels. In the last ten months of 1864 the squadron captured twenty steamers thirty miles or more from the inlets of the river. In comparison, only five were captured and nine destroyed in the immediate vicinity of Wilmington.52 Even though the outside blockaders became more important, Lee still considered them secondary to the bar blockaders.

The Union navy never solved the problem of the proper type of vessels to be placed on the Wilmington blockade. More small swift steamers were needed, while there was an overabundance of large ships

50 Samuel Lee to Gustavus Fox, February 20, 1864, Thompson and Wainwright, Fox Correspondence, II, 276-277.

51 William Keeler to Anna Keeler, April 1, 1863, Daly, Aboard the U.S.S. Florida, 21.

52 Merrifield, The Seaboard War, 177; Benjamin Sands to Samuel Lee, May 5, 1861, ORN I, TX, 729.
not suited for this service. These larger vessels in most cases were too slow to catch blockade-runners. This tendency for larger and more heavily armed vessels perhaps directly corresponded with the fear of Confederate ironclads and commerce raiders but this fear was not justified. There were only five Confederate armed vessels in the Cape Fear River. Two of these vessels were ironclads and were not in commission until the spring of 1864. The vessels, the Raleigh and the North Carolina, both had four guns, but the North Carolina remained at anchor because of poor machinery. The North Carolina eventually sank at her moorings, a victim of shipworms. Two other vessels, the Yadkin and the Equator, were only small steamers. The fifth vessel was a floating battery called the Arctic. 53

In spite of this weakness, the fear of Confederate ironclad rams had a definite effect on the Union naval officers off Wilmington. One officer commented:

A terrible disease is prevailing in the fleet here--commanding officers seem to be the most severely attacked with it though no one as yet has been lost. It is termed "ram fever" & is supposed to be brought on by the occasional sights at a rebel ironclad passing up & down the river between Fort Caswell & Wilmington. 54


54 William Keeler to Anna Keeler, July 13, 1863, Daly, Aboard the U.S.S. Florida, 66.
There were many false alarms mistaking small buildings and little river steamers for Confederate ironclads. The Raleigh did sortie from the river on May 6, 1864, with the Yadkin and the Equator. The movement of these vessels was observed by the Mount Vernon, but the captain did not report the sighting to the senior officer, Captain Sands. At 8:00 P.M. the three ships slipped over the bar and were sighted by the Britannia which fired off a rocket and opened fire with her thirty-pound parrot gun. Failing to stop the ironclad, the Britannia fled to sea. For the next two hours the Raleigh probably steamed in circles trying to locate another blockading vessel. At 11:45 P.M. the Raleigh exchanged shots with the Nansemond who also escaped in the dark night.55

At dawn the following morning the Raleigh lay several miles from the bar with the two steamers nearer the bar. The ironclad steamed toward the Hoxquah and put a shot through her stack. The Nansemond, Kansas, and Mount Vernon all exchanged shots with the Raleigh, but neither side made a hit. At 7:00 A.M. the Union vessels were content to let the Raleigh and her two consorts slip back over the bar. This would be the Raleigh's last attack for on her way back over the bar she grounded and broke her back.56

After the affair with the Raleigh, paymaster William Keeler aboard the Florida commented: "It has been 'ram, ram, ram,' till as one of the officers remarked the other day, the very atmosphere was

55 William Keeler to Anna Keeler, July 13, 1863, Taly, Aboard the U.S.S. Florida, 66-67; Still, Iron Afloat, 165-166.

56 Still, Iron Afloat, 166-167.
impregnated with the smell of mutton." In order to deal with the threat of ironclads, the Violet was fitted with a torpedo, one that exploded on impact. The torpedo projected from the vessel on a pole between fifteen and twenty feet long. It carried 150 pounds of powder and had four fuses that projected six inches at different angles. The officers of the Violet found that this arrangement did not work well in rough water—the torpedo becoming more of a danger to the vessel than to the enemy.58

Gideon Welles was never satisfied with the leadership of Rear Admiral Lee, and in July, 1864, Lee lost all of Welles's respect. During July, Jubal Early's army threatened Washington, D. C., and Welles requested the Atlanta and several other gunboats be sent to the Potomac River. Lee saw his chance to "save the capital" and took the Malvern up the Potomac, leaving his post at Hampton Roads without orders. Infuriated, Welles immediately ordered Lee and the Malvern back to the James River. Welles pointed out that the whole purpose of Early's movements had been to draw Federal forces away from Petersburg. General Grant had understood the movement, but the "naval commander yielding to the panic created ... left his station and proceeded to the capital, where neither himself nor his dispatch vessel could be of any service." This, in Welles opinion, "compromised the action and efficiency of the squadron."59

57William Keeler to Anna Keeler, May 15, 1864, Daly, Aboard the U. S. S. Florida, 171.


On July 2, Welles had asked Lee to make an inspection of the different commands of the squadron; after the latter incident Welles ordered him to do so. In order to make his inspection unnecessary Rear Admiral Lee presented a reorganization plan to Welles, designed to strengthen the authority of the senior officers at Wilmington, thereby making his presence there no longer necessary. In order to "promote efficiency of the blockade of Wilmington," Lee established two divisions, one for each inlet.60

This arrangement did not satisfy Welles. He thought four divisions were necessary instead of the proposed two. He ordered the establishment of one division for each of the inlets of the Cape Fear, one division for the sounds, and one for the James River. Welles turned over command of the James River Division to Captain Melancton Smith and established the North Atlantic Blockading Squadron's headquarters at Beaufort. The Naval Secretary instructed Lee that he could only come to Hampton Roads when "public emergency" required it. Otherwise he was ordered to give his "principle attention to the blockade, which has latterly become very inefficient."61

An officer aboard the Florida remarked:

Rumor has it that he [Lee] received a severe reprimand from the Department for spending all his time up the James River where he wasn't needed & neglecting the blockade where they seemed to think his presence was necessary, but of what use he is here no one that I know of has yet been able to

60 Samuel P. Lee to Gideon Welles, July 6, 1864, ORN I, X, 232; Samuel Lee to Oliver S. Glisson, July 10, 1864, ORN I, X, 286-287.
discover. All under his command dislike him and wish him away—their visits on board the flag ship are no more frequent than duty demands. . . .

Gideon Welles further humiliated Lee by reducing his command once more. On September 1, Welles gave Commander Stephen C. Rowan command of the vessels in the sounds, a division separate and distinct from Rear Admiral Lee's control. 63

The new organization of the squadron did give the commanders at Wilmington a larger input into the conduct of the affairs of the blockade. In order to give greater flexibility Flag Officer Lee instructed that when a divisional officer found it judicious to change any part of his orders, he was authorized to do so. An officer changing an order, though, must tender a written report stating the reason for the deviation. 64

After these changes the blockade became more effective. Other minor changes further increased this efficiency. Charts were used to aid the commanders of vessels. Men were not allowed to crowd forward while chasing. Vessels were to be coaled only on moonlit nights, and were to make sure their coal bunkers were full on dark nights. Unnecessary chasing was not allowed, and no more than two fifths of the blockaders could be away for coal. 65

62 William Keeler to Anna Keeler, August 7, 1864, Daly, Aboard the U. S. S. Florida, 188.

63 Gideon Welles to Stephen C. Rowan, September 1, 1864, O R N I, X, 415.

64 Samuel P. Lee to Benjamin F. Sands, August 11, 1864, O R N I, X, 347.

65 Samuel Lee to Oliver S. Glisson, July 18, 1864, O R N I, X, 286-287.
The bar tender remained the most important vessel in Lee's system of blockade. The Howquah proved to be the best vessel for this inshore service. Lee requested a half dozen of this type vessel for each inlet, but never got them. The small vessels remained stationed as close to the bars as the weather and their draft would permit. These small steamers stayed underway at all times and were instructed not to chase. The bar tenders were backed up by a second line of larger vessels that moved like "sentries" ready to chase. The limits of each group of vessels was determined by the divisional officers. Stationed beyond these two rows were the cruisers who ran along the same lines as the blockade-runners.66

In order to avoid early detection, the blockading vessels were painted a light lead color like the blockade-runners. The bar tenders except the largest class were not to have any yards or masts. Those with yards and masts were to remove them. These vessels were to work off their high pressure in their boilers by turning in short circles continuously; taking care to avoid collisions. Mast lookouts were to wear loose white suits in order to avoid detection and were to be "picked men encouraged to vigilance." Vessels were also to be ready to use their guns on Confederate naval vessels, using sharpshooters on the enemy's officers, captains, helmsmen, and loaders of guns.67

66 Soley, The Blockade and the Cruisers, 93-94; Samuel P. Lee to Benjamin F. Sands, September 1, 1864, ORN I, X, 414-415; Samuel Lee to Oliver S. Glisson, September 1864, ORN I, X, 420; Samuel Lee to Oliver Glisson and Benjamin F. Sands, September 18, 1864, ORN I, X, 467.

67 Samuel Lee to Benjamin Sands, September 1, 1864, ORN I, X, 414-415; Samuel Lee to Frederick D. Stuart, September 22, 1864, ORN I, X, 475.
Rear Admiral Lee did much to improve the blockade of Wilmington but Rear Admiral David D. Porter made the blockade even more effective. Porter insisted that the squadron pay more attention to procedure, rules, regulations, and drills. Although retaining the basic tactics of Lee, he inaugurated a number of changes shortly after assuming command. One or two vessels at each bar were furnished with calcium lights to light up the bars at night, these lights also being useful during the chase. When contact was made with the enemy, the vessels at the bar used not only rockets but also steam signals to warn the other blockaders. The fastest bar tenders were ordered to chase a violator as long as there remained a chance to catch it. Two thirds of all the vessels were now stationed away from the bars. These constituted the main difference from Lee's tactics. 68

Porter having more vessels to work with than Lee, was able to station his vessels more effectively. This operational plan consisted of an eight-station crescent formation of bar blockaders off Western Bar and a double row of seven stations off New Inlet. A single vessel remained stationed at the end of Frying Pan Shoals, the apex of all the blockade-running lines. Due north, behind the bar tenders at New Inlet, were stationed a second line of vessels. There were two lines of outside blockaders. In the first semi-circle there were twelve, and the outermost lines joined, forming a vee. 69 (See Figure 5.)


69 David Porter to Gideon Welles, November 3, 1864, ORN I, XI, 45.
Fig. 5. Porter's Tactical Plan at Wilmington, David D. Porter to Gideon Welles, November 3, 1864, ORN I, XI, 45.
Commander Daniel Ammen of the Mohican made several valuable suggestions concerning the blockade which Porter was able to use. Ammen felt that captains had too many responsibilities, being required to perform the routine duties of the squadron during the day and also running his vessels at night while underway. Porter therefore stationed two regular naval officers at each bar who solely regulated the stationing of vessels. Ammen also felt that the frequent changing of officers due to absences led to confusion and an irresponsible feeling on the part of some of the commanding officers who did not understand the service. To thwart this problem Porter instructed that the officers of the bar were to always remain at their stations. If their vessel needed coal, they were to transfer to another bar blockading vessel. 70

In order to make the blockade stricter, the consuls stationed at points Confederate goods were shipped sent information during the entire war regarding blockade-running. This information gave the commanders of vessels an early warning. Consuls often sent the names of suspected vessels, their cargo, departure time, the suspected port of violation, and approximate arrival time. 71

Captains of vessels faced many disadvantages which hampered their efforts to capture blockade-runners. Their largest handicap stemmed

70 Daniel Ammen to David D. Porter, November 27, 1864, ORN I, XI, 98-99; David Ammen to David Porter, November 28, 1864, ORN I, XI, 100; General order (no #) by David D. Porter, Commander of the North Atlantic Blockading Squadron, December 1, 1864, ORN I, XI, 116-117.

71 Freeman H. Morse to William H. Seward, October 11, 1861, ORN I, VI, 368-369; From U. S. Consul at Liverpool, November 18, 1862, ORN I, VIII, 294-295.
from the fact that their vessels, in most instances, were not as swift as the blockade-runners. As of September 1, 1864, there were only eight vessels out of the twenty-six stationed at Wilmington that could, under the best conditions, obtain a maximum speed of thirteen knots or more. The average for the vessels was slightly over twelve knots. The three fastest vessels off the inlets were ex-blockade-runners.\textsuperscript{72}

Communications continued to be a large problem throughout the entire war for the Union naval force off the Cape Fear. Geography and weather were the major factors involved. The fifty mile trip around the shoals took a vessel having a twelve-knot speed six to eight hours. More rapid communication could be done across the reef by small boats, but bad weather often made this impossible for as long as a month at a time. During periods of bad weather, Beaufort was the only place the vessels could exchange information. This inconvenience sharply reduced the efficiency of the squadron.\textsuperscript{73}

Under ordinary circumstances, there were several means by which vessels could communicate. Lanterns could be used, being hoisted to various positions in the vessel. But Coston's signals, consisting of different colors burning on a hand held stick, proved much superior. Visual signals also included Myer's signals, a system of flags. Myer's signals were adopted in June, 1861, by the army and were soon thereafter

\textsuperscript{72}Samuel P. Lee to Gideon Welles, September 1, 1864, ORN I, X, 410-412; ORN II, I, 30-240.

\textsuperscript{73}Samuel P. Lee to Gideon Welles, July 10, 1863, ORN I, IX, 118-119; ORN II, I, 145; Benjamin F. Sands to Samuel P. Lee, February 17, 1863; ORN I, VIII, 533; Gustavus H. Scott to Samuel P. Lee, October 11, 1862, Lee Collection. L.C.M.
also adopted by the navy. But because the signals were difficult to learn, during the entire war they were performed aboardship by army personnel assigned for duty with the navy. Rockets were also widely used by the naval vessels, especially to indicate directions of a blockade-runner. Signal books were carried aboard the vessels to aid the captains, and if these books could not be accounted for in the case of a lost ship, the signals were changed to assure that the current signaling system not fall into the hands of the blockade-runners. 74

In addition to problems of communication, Frying Pan Shoals caused the Union navy many other difficulties. On the trip from one side to the other, vessels could not see any land to make observations for plotting the ship's position. Without some point of reference the vessels had to travel far out of their way in order to avoid the shoals. To alleviate this situation, the navy on July 4, 1863, moored a light ship at the end of the shoals. This vessel aided the blockade greatly but it broke away from its moorings on December 21, 1863, drifted to South Carolina and was never replaced. 75

Another serious problem for the blockaders was the superior nature of the ships used to run the blockade. Early in the conflict any vessel was considered good enough for a blockade-runner. As the blockade became more effective, however, the blockade-runners evolved to meet the

74 Hayes, Du Pont, I, 169n, 202n, II 413-414n; David D. Porter to Oliver S. Glisson, November 13, 1864, ORN I, XI, 62; Benjamin F. Sands to Samuel P. Lee, January 30, 1863, ORN I, VIII, 487.

challenge. These new specially designed ships were constructed expressively for speed. They sat low in the water, were extremely narrow, were usually built of iron or steel, and sometimes had turtle-back decks to help them drive through the heavy seas. Builders constructed both screw and sidewheel vessels. The twin-screw steamers became the most common toward the war's end, perhaps because they were less vulnerable to gunfire. In order to avoid detection, spars were reduced to a very light pair of lower masts, with no yards. A small crow's nest was the only alteration from the ships sharp outline. The hull showed very little above the water and was usually painted a dull grey to camouflage the vessel. The ship's boats were kept lowered to the gunwales, and some steamers had telescoping funnels which could be lowered to the deck in order to maintain a low profile. English engines were made to burn the soft English coal, but the blockade-runners used anthracite coal whenever possible because it made little or no smoke. When approaching the shore, these vessels blew their steam off under water, showed no lights, and muffled their paddle wheels with canvas, all to avoid detection. Some captains even insisted that their crews wear white clothing "believing that one black figure was enough to betray an otherwise invisible vessel."76

Most of the blockade-runners coming into Wilmington operated out of either Nassau or Bermuda. The distance to Wilmington from Nassau was 570 miles, or forty-eight to fifty-five hours, and 67\(\frac{1}{4}\) miles from Bermuda, or a seventy-two-hour journey. Each captain tried to cross the Gulf Stream current early in the afternoon in order to establish the ship's position by chronometer "so as to escape the influence of that current on his dead reckoning."\(^7\)

The salt works along the beaches served to guide the blockade-runners to the inlets. By August, 1864, there were two lighthouses at each inlet, range lights, and Confederate army signal lights on the coast to guide the vessels in. When a blockade-runner arrived at one of the inlets, an effective signal system served to guide the vessels. On March 11, 1864, the Confederates took an important step in guiding the blockade-runners when they assigned Lieutenant John Wilkinson and seventy Confederate navy men at Wilmington to establish a system of lights and buoys. This system worked well for a few months until Wilkinson's transfer. After his transfer no one was capable or taking his place and the signal system lapsed into obscurity.\(^8\)

The mound at the end of Federal Point served not only as an artillery platform, but as a tower for range lights. These range lights

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\(^7\)Sprunt, Tales of the Cape Fear, 19; John Wilkinson, Narrative of a Blockade-Runner (New York, 1877), 132, hereinafter cited as Wilkinson, Narrative.

were lit after a signal had been made with the beach and was extinguished as soon as the vessel entered the river. Each blockade-runner carried a Confederate signal man, who, by code, could communicate with the shore using flags during the day and a lantern at night. 79

To insure greater success, blockade-runners chose moonless nights to make their trips to Wilmington. This practice led the blockading vessels to do their refueling on the nights of a full moon when possible. At times this virtually crippled the blockade because of the great number away for coal. In November, 1863, there were as many as eight blockading vessels at Beaufort for coal leaving the blockade at Wilmington at virtually half strength. 80

Blockade-runners tried to reach the coast fifteen to forty miles above or below the inlets and then run along the coast relying on the shoreline and the pounding surf to conceal them. The Union navy tried to put a stop to this by stationing a vessel close to the shore anchored with a kedge anchor. Space was left for a blockade-runner to pass by. Blockade-runners often got through this space without being

79 Taylor, Running The Blockade, 72; Wilkinson, Narrative, 152-153; Mark De Wolf Stevenson to William De Wolf Stevenson, April 17, 1907, Mark De Wolf Stevenson Papers, Southern Historical Collection, University of North Carolina at Chapel Hill, hereinafter cited as De Wolf Stevenson Papers, S.H.C.

detected, but if not, a rocket lit the sky and the blockaders closed around in a prearranged plan. 81

Contraband cargoes were worth so much that worthless vessels were sometimes run aground intentionally and unloaded in the surf. Vessels which were trapped often ran aground in order to save some of the cargo. In these instances the grounded vessels were quickly unloaded by Confederate soldiers. When the Modern Greece ran aground, two companies of soldiers from Fort Fisher were able to save two thirds of the cargo. This included 7,000 stand of arms, 2,770 barrels of powder, grey cloth, domestic clothing, medicine, shoes, wines, brandies, spices, and cannon. 82

Beached vessels fell prey to the blockaders, though destroying a beached vessel was not very easy. On the road from Fort Fisher at different points the Confederates kept two Whitworth guns limbered to horses. At a moments notice these guns could be pulled to the site of a beached blockade-runner, where they were used to drive off the blockading vessels. These guns had a range of about five miles, and each time they were fired, the position of the gun was changed to keep the Union vessels from sighting in on them. While destroying the Hebe, the Union sailors captured a Whitworth gun. General William Whiting remarked about this loss:

81 Taylor, Running The Blockade, 49-50; Johns, "Wilmington During the Blockade," 501; Roberts, Never Caught, 5-6.

82 Daniel L. Braine to John M. B. Clitz, July 6, 1862, ORN I, VII, 547; Catherine Buie to Kate, July 6, 1862, McGeachy Papers, D.U.M.C.; L. Warlick to Cornelia Mcginsey, July 5, 1862, Cornelia Mcginsey Papers, Southern Historical Collection, University of North Carolina at Chapel Hill, hereinafter cited as Mcginsey Papers, S.H.C.
I have met with a serious loss in that Whitworth, a gun in the hands of the indefatigable Lamb has saved millions of money to the Confederate States. I beg that a couple of the Whitworth guns originally saved him from the Modern Greece may be sent here at once. Their long range makes them most suitable for a seaboard position.\textsuperscript{83}

Blockade-running captains did not always fear to steam directly through the arc of the fleet. One captain remarked:

In truth the passage through the fleet was little dreaded; for although the blockade-runner might receive a shot or two, she was rarely disabled; and in proportion to the increase of the fleet, the greater would be the danger of their firing into each other...[making them] very apt to miss the cow and kill the calf.\textsuperscript{84}

Blockade-runners sometimes were able to use Federal signals for guidance. The captains knew that the senior officer generally lay about two and a half miles from the rivers mouth, and showed lights to the cruisers to its left and right. They used this light to guide themselves to the entrance. The Union navy soon discovered this ploy and changed the senior officers position nightly. The Union navy also placed launches near the bars and when signals were exchanged between the blockade-runners and the shore the Union blockaders would shell the bar.\textsuperscript{85}

Once the blockade-runners ran past the fleet and were under the guns of the batteries of the forts they were virtually safe inasmuch as the

\textsuperscript{83}Roberts, Never Caught, 9; William Keeler to Anna Keeler, March 3, 1864, September 9, 1863, Daly, Aboard the U. S. S. Florida, 154, 87; William H. C. Whiting to James A. Seddon, August 24, 1863, ORN I, IX, 173-174; Thomas A. E. Tuten to Clarisa, August 25, 1863, Arthur Whitford Collection, East Carolina Manuscript Collection, hereinafter cited as Whitford Collection, E.C.M.C.

\textsuperscript{84}Wilkinson, Narrative, 131.

\textsuperscript{85}Roberts, Never Caught, 7; Taylor, Running The Blockade, 72.
range of the fort's guns were usually longer than the range of the blockader's guns. Vessels could anchor under the guns until the tide was high enough to admit them over the bar. Before 1863 vessels coming into New Inlet were forced to cross the bar immediately because the fort's guns did not have the range to protect them from the blockading vessels' fire. Once they were in the river it became time for a celebration of "champagne cocktails; not whiskies and sodas . . . [because] . . . one did not run a blockade every day."86

Blockade-runners often had to lighten their loads on the inward and outward journeys to escape the blockaders. A small sandy knoll two or three miles outside the New Inlet bar called the "lump" caused many valuable inward and outward bound cargoes to be thrown overboard. Outward bound blockade-runners being chased, often had to lighten their loads by pitching bales of cotton overboard to avoid capture. The Young Republic, for example, cast 319 bales of cotton overboard. The Grand Gulf still overhauled her. The act of gathering this cotton took the Grand Gulf sixty hours. When the Kate became stuck on a bar, her crew had to throw one hundred tons of lead overboard before she floated off. While being chased, blockade-runners would throw overboard anything that would hamper their speed or that would be of value to their captors. One blockade-running captain noted: "The approaches to Wilmington are paved as thickly with valuables as a certain place is said to be with good intentions."87

86A. Ludlow Case to Samuel P. Lee, February 13, 1863, ORN I, VIII, 325-326; Taylor, Running The Blockade, 54.

87George M. Ransom to Samuel Lee, May 9, 1864, ORN I, X, 6-7; Enclosure to Benjamin F. Sands to Samuel Lee, May 10, 1864, ORN I, X, 7-8; Friend to Miss Kate, October 5, 1862, Catherine Buie Papers, D.U.M.C.; James Sprunt, Tales of the Cape Fear Blockade (Wilmington, 1960), 122, hereinafter cited as Sprunt, Tales of the Cape Fear Blockade; Wilkinson, Narrative, 127.
Speed was another important factor which in many cases determined whether a blockade-runner escaped. Inward bound blockade-runners were faster than those outward bound. At Bermuda and Nassau, captains observed good discipline. While anchored in Wilmington, this discipline became more lax and boilers and machinery remained unattended in many cases. Outward bound blockade-runners when caught, frequently had extremely dirty machinery indicating this laxity.  

The ruses which blockade-runners used made capture difficult. Blockade-running captain John Wilkinson bought rockets from New York. A few minutes after his pursuer signaled, he would send up identical rockets at right angles to the course his vessel was steaming. This ploy always misled the pursuers. In the daytime if his vessel happened upon a blockader in the distance, he would raise the United States colors, which usually deceived the Union vessels. When being chased, these crafty captains would pull out of sight at dusk and then put the helm over hard, giving the ship a course at a right angle to the one they had been steaming. The captain would stop his vessel and watch the Union ship pass by, shooting its guns and rockets.  

A feeling of helplessness often prevailed on the blockaders off the Cape Fear. At night Union sailors could hear steamers slipping by them, but in the darkness the crews often saw nothing. The Union warships would prepare to give chase, but they were in "pursuit of a  

88 John J. Almy to Samuel Lee, April 18, 1864, ORN I, IX, 661.  
sound, uncertain from what direction it came."⁹⁰ Paymaster William Keeler aboard the Florida remarked:

We began to appreciate the difficulties of keeping a thorough blockade—let no one condemn the occasional running in or out of a vessel till they have experienced some of the difficulties of preventing it. You may imagine . . . our vessels . . . scattered along from two to four miles apart. What is there to prevent a vessel from running between them in the darkness when it is impossible to see more than three to four hundred feet from the ship.⁹¹

The most dangerous moments on blockade duty were perhaps the instant a Union vessel sighted a blockade-runner. Vessels in their haste to capture these violators often shot at each other and did considerable damage. Collisions with blockade-runners and other blockading vessels were not uncommon. Lookouts were instructed to be ready at all times to uncover the tarpaulin hoods that covered the lights. Officers were warned to be vigilant at all times to help avoid collisions.⁹²

Vigilance was not always enough to insure the safety of the vessels. The shallowness of the waters in the Wilmington area claimed five blockading vessels. Four vessels, the Astor, the Violet, the Iron Age, and the Columbia, were lost to bars, shoals, or shallow water.

⁹⁰William Keeler to Anna Keeler, April 11, 1863, Daly, Aboard The U. S. S. Florida, 20-21.

⁹¹William Keeler to Anna Keeler, April 11, 1863, Daly, Aboard The U. S. S. Florida, 20-21.

⁹²John W. Balch to Samuel P. Lee, September 26, 1864, ORN I, X, 479; William Keeler to Anna Keeler, August 7, 1864, Daly, Aboard The U. S. S. Florida, 189; Abstract Log of the Fort Jackson and Aries, October 29, 1864, ORN I, XI, 10-11; Miles Larson to Joseph B. Breck, November 9, 1863, Lee Collection, L.C.M.; Gustavus Scott to Samuel Lee, October 7, 1862, Lee Collection, L.C.M.
The fifth, the Peterhoff, sank when she was rammed by the Monticello. 93

Often in the excitement of discovering a blockade-runner the officers aboard blockading vessels failed to make signals indicating the course of the violator. Greed was sometimes the reason for this action. Officers might fail to make any signals in order to get sole share in the prize money rather than share it with other vessels. This failure to signal most often, though, resulted from excitement, or from inexperienced officers who did not know the correct procedure. 94

The chase was the most exciting experience for those aboard the blockaders. During a four-hour chase the blockading vessel might fire as many as 1,400 shots at the blockade-runner which kept the crew busy. 95 Chases often lasted for hours frequently ending with no capture. The blockading vessels' machinery was usually in poor repair and this caused many breakdowns and thus lost prizes.

Blockading vessels used extraordinary measures in order to overtake and capture their prize. Tar and grease were thrown in the furnaces to raise an extra head of steam. The Florida, in order to gain speed dumped overboard a sand barricade of four hundred sandbags used to

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93 Joseph P. Couthouy to Gideon Welles, May 18, 1863, ORN I, VIII, 431-436; Edward E. Stone to Gideon Welles, January 14, 1864, ORN I, IX, 396-398; Benjamin F. Sands to Samuel Lee, March 6, 1864, ORN I, IX, 535; Thomas Strothard to Benjamin F. Sands, August 8, 1864, ORN I, X, 343; Samuel Hall to Samuel Lee, October 8, 1864, ORN I, X, 541-542.

94 General Order #41 by David D. Porter, Commander of the North Atlantic Blockading Squadron, November 9, 1864, Clitz Papers, R.G. 45, N.A.; Board of Investigation to David D. Porter, November 18, 1864, ORN I, XI, 38.

95 Gideon Welles to Samuel Lee, August 26, 1864, ORN I, X, 402-403; Daniel B. Ridgely to Samuel P. Lee, August 10, 1864, ORN I, X, 368.
protect her steam drum. This did not help, so her crew took down the yards, top masts, and anything else that would offer resistance to the air.96

If a blockade-runner were overhauled, armed cutters were usually sent to examine the vessel. If near the shore the crew from the blockade-runner often abandoned the vessel and tried to destroy it. This created a dangerous situation for the Union sailors when they boarded these vessels. Often all the safety valves had been tied down, the pipes had been cut, and the ship was about to explode. The tars also had to worry about the rough surf and the threat of Whitworth guns. If the prize were a total loss, the sailors were allowed to loot the vessel. But if the vessel were of some value, no one could take a single item from the ship without the risk of forfeiting the prize. Blockade-runner crews had a practice of throwing articles overboard. But this practice ceased inasmuch as they risked being fired upon by the blockaders' guns.97

When a blockader stopped a merchant vessel suspected of violating the blockade or of carrying contraband, the ship's papers (the bills of lading, the register, the cargo manifest, the invoices, and the charter

96William Keeler to Anna Keeler, November 6, 1863, Daly, Aboard The U. S. S. Florida, I11.

party) were all looked over very carefully. After this examination, the boarding officer would determine what to do with the vessel and its cargo. If he considered the vessel innocent of any infractions of the law, the vessel would be released. But if there were any suspicions, the vessel would be taken as a "lawful prize of war."98

Blockade-runners caught off Wilmington were sent to Beaufort, where they were appraised, and if seaworthy they were sent north for adjudication. A great inconvenience was experienced by the detachment and the retention in Federal courts of prize crews. This procedure kept valuable men and officers away from their duties at Wilmington. Rear Admiral Lee wanted prize crews to be promptly returned after the prize court proceedings. To expedite matters and to keep his officers at their commands, Lee suggested that six officers be ordered to Wilmington specially to take charge of prizes.99

The prize courts were generally at Federal District Courts, the principal ones being at New York, Boston, Baltimore, Washington, Philadelphia, Providence, New Orleans, and Key West. Studies show that the expenses of the trials were different depending on where the court was held. Congressional investigation found that Boston costs amounted to 5.83 percent of the value of the prize, at Philadelphia 14.09 percent, and at New York 15.39 percent, costing almost three times as much at New York as at Boston.100

98Bernath, Squall Across the Atlantic, 8.
99Samuel P. Lee to Gideon Welles, December 7, 1862, ORN I, VIII, 263; Samuel P. Lee to Andrew H. Foote, February 11, 1863, ORN I, VIII, 520; Samuel P. Lee to Gideon Welles, March 7, 1863, ORN I, VIII, 589.
100Bernath, Squall Across the Atlantic, 8; W. R. Hooper, "Blockade Running," Harpers New Monthly Magazine, XXII (December, 1870), 107, hereinafter cited as Hooper, "Blockade Running."
The prize money divided by the captors tended to offset the often grueling and monotonous blockade duty. After adjudication costs, one half of the money went to the navy pension fund and the other half went to the captors in amounts relative to their normal pay. The Greyhound captured by the Connecticut fetched her captain, John Almy, nearly ten years pay. When the little tug Eolus captured the Hope off Wilmington in 1864, the acting master won $13,164.85; the assistant engineers received $6,657.00. This amounted to more than four years pay for each of them. The seamen won over $1,000.00 apiece while the cabin boy whose pay amounted to less than $2.50 a week, received $532.60. The Eolus, nine days later, captured the Lady Sterling, which netted the ensign on board almost $23,000. Not all prizes were this valuable, however. The cost of adjudication sometimes exceeded the value of the prize, leaving nothing for distribution to the crew. The sloop Ann cost $50.15 to condemn and only sold for $50.00. Rear Admiral Lee earned $109,689.69 during his career, the highest paid to any naval officer. It is no wonder he referred to the North Atlantic Blockading Squadron as the "prize money command."\(^{101}\)

A key factor in the evolution of tactics during the war was the change in the control of naval policy. Improved communication and the fact that the war was being fought on American soil produced a situation

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where the officials in Washington not only made policy decisions, but were able to formulate strategy and tactics. This greatly affected the blockade at Wilmington, but the greatest factor was the better understanding of the circumstances of the service. Changing tactics never made the blockade airtight, although it did stop more of the illicit traffic. Outside cruisers were the greatest contributor to this success. It seemed that no matter what the Union navy did they could not stop this commerce. One sailor summed up his feelings and the helpless feelings of others when he remarked: "A steamer came in and the men on her put their finger to their nose . . . so you see that it is the way that things go on."102

102Hayes, Du Pont, I, xcvi; Soley, The Blockade and the Cruisers, 93; Henry B. Rommel to Mr. and Mrs. Rommel, April, 1863 (n.d.), Henry B. Rommel Papers, Manuscript Department, Perkins Library, Duke University, Durham, hereinafter cited as Rommel Papers, D.U.M.C.
THE EFFECTIVENESS OF THE WILMINGTON BLOCKADE

Off the port of Wilmington the Union navy perhaps more than at any other point along the Confederate coast, failed to maintain a tight blockade. The efficiency at Wilmington was tested from the day the first Union vessel arrived until the fall of Fort Fisher. For example during 1861 alone 21 steamers and 253 sailing vessels engaged in trying to run the blockade of just North Carolina and South Carolina. Most of these vessels were those which carried on the trade with the southern ports prior to the war. During the early months of the war the southern people had no choice of vessels to run the blockade, being forced to use the vessels that were available until more suitable ones could be built or purchased.¹

Before a successful trade with Europe could be established, the Confederate government had to establish its credit abroad. The nations of Europe were at first reluctant to extend credit to the infantile Confederacy. During the first eighteen months of the war, letters of credit, foreign bills of exchange, and coin served to make the government purchases. The price of cotton soared during the spring of 1862 in England from seven pence a pound to twelve or thirteen, and by the end of the year it had more than tripled the price from the spring.² This


high price for cotton made it easier for the Confederate government to establish its credit. The sudden demand for goods within the Confederacy combined with the high prices made blockade-running extremely profitable for those willing to take the slight risks.

A single trip of an average-sized vessel could bring one million dollars worth of goods in Confederate money into a port. Fifty thousand dollars of the same money would fill the vessel with cotton. A merchant could thus realize a profit of 500 percent on a single trip. The merchant only risked losing two hundred thousand dollars, half for the vessel and half for the cargo. Although huge profits were made on the inbound cargoes, even larger profits came from outward-bound ventures. In a few cases when satisfactory cargoes could not be found in Bermuda or Nassau, for the trip into the southern states, steamers would run into Wilmington in ballast in order to make an outward trip loaded with cotton.3

Blockade-runners had small carrying capacities resulting in exorbitant freight rates. In some cases rates ran between $330 and $1,000 per ton. Because of these high rates some items were more profitable to bring through the blockade than others. Guns and accouterments were economically feasible to bring through the blockade, but badly needed items such as railroad rails, marine engines, and locomotives were too expensive to carry because of the weight.4 Even

3 A. Sellew Roberts, "High Prices and the Blockade in the Confederacy," The South Atlantic Quarterly Review, XXIV (April, 1925), 158-161, hereinafter cited as Roberts, "High Prices and the Blockade"; S. C. Havley to William H. Seward, June 1, 1863, ORN I, IX, 80-81; Samuel P. Lee to Gideon Welles, January 4, 1864, ORN I, IX, 385-386.

so, the products brought through the blockade were numerous and varied. For example, cargo manifest among other items included: tea, salt, stationery, hardware, medicines, ordnance, coffee, liquor, dry goods, beef, pork, potatoes, onions, ham, bacon, tin, lead, iron, rope, copper, shoes, clothing, paint, gun powder, muskets, sugar, shoe thread, bagging, linseed oil, acid, spices, blankets, hats, leather, calomel, silk goods, ink, shovels, candles, vinegar, oakum, alcohol, saltpeter, wine, champagne, soap, alum, cement, screws, and cotton cards.5

There were some risks involved in blockade-running. Many vessels were lost on their maiden voyages, while others ran the blockade numerous times. The most successful blockade-runner was the Siren which made an unprecedented sixty-four trips through the blockade. James R. Randall, a clerk in a blockade-running firm in Wilmington, commented: "Bad luck is expected occasionally, but the percentage of profit is largely in favor of the Confederate steamers. Nearly every one that had been captured had paid for herself a half-dozen times."6

After private speculation had proved successful and profitable, the Confederate government began to purchase steamers to carry badly needed government supplies. The army ordnance department bought four steamers, the Cornubia, R. E. Lee, Merrimac, and the Phantom. In 1864 the steamers Owl, Bat, Stag and Deer were also purchased for the Confederate army ordnance department, but were under the control of the

5Vandiver, Confederate Blockade Running Through Bermuda, 109-118.

6Barrett, The Civil War in North Carolina, 252-253; James R. Randall to Katie, December 16, 1863, Randall Collection, S.H.C.
Navy Department and commanded by naval officers. These four new vessels had engines powerful enough for vessels four times their size and were said to be able to make seventeen knots. The Confederate government contracted for ten more vessels for blockade-running but most remained unfinished at the war's close.  

In 1862 the state of North Carolina also entered the blockade-running trade. Adjutant General James C. Martin suggested that the state import their own goods because he could not obtain enough material to clothe the North Carolinians under arms. The state bought the Lord Clyde, an English steamer capable of seventeen knots and rechristened her the Advance in 1862. The state also bought an interest in the steamers Annie, Don, and Hansa, from the English firm of Alexander Collie and Company. These steamers enabled the state of North Carolina to import large quantities of war materials that otherwise would have been unavailable, giving the state a self-sufficiency that no other southern state could boast of.  

The success of these and other blockade-runners was possible and due to the change from sail to steam. The blockade tightened with the

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addition by the Union navy of more and faster vessels which caused the 
blockade-runners to go through a metamorphosis. The 253 different 
sailing vessels known to have run the blockade of North and South 
Carolina in 1861 dropped to 145 in 1862, 53 in 1863, and 14 in 1864. 
In contrast the number of steamers increased from twenty-one in 1861, 
to forty-nine in 1862, seventy-three in 1863, and ninety-eight in 1864.9

As the war progressed Wilmington's importance grew as other 
Confederate held ports were closed by Union occupation. In late 
October, 1863, the Confederate government established Wilmington as 
the principal point of departure for outgoing government freight. 
Major Thomas L. Bayne of the Confederate army ordnance department had 
general supervision of the government and private vessels carrying 
Confederate cargoes. In charge of the cargoes at Wilmington, Bayne 
stationed J. M. Seixas who oversaw a large government-owned cotton 
press, capable of compressing five hundred bales of cotton a day.10

Although the importance of Wilmington was second only to Richmond 
by 1864, it is extremely difficult to determine the effectiveness of 
the blockade of this port, which must be done from fragments of data. 
It is estimated that fourteen hundred violations occurred at the ports 
of Wilmington and Charleston, while Savannah and Georgetown both had 
about one hundred violations each. The total number of violations for 
the whole southern coastline is estimated at around twenty-four hundred.


10 Frank E. Vandiver, Ploughshares Into Swords, Josiah Gorgas and 
Confederate Ordnance (Austin, 1952), 100-101, hereinafter cited as 
Vandiver, Ploughshares Into Swords.
Evidence shows that in 1861 a blockade-runner had a one in ten chance of being captured; not more than one in eight in 1862; one in four in 1863; about one in three in 1864; and in 1865 after most ports were closed about a one in two chance. The Index, a London paper, observed between January 1, 1863, to the middle of April, 1864, that out of 590 attempted trips into the ports of Wilmington and Charleston 498 succeeded in eluding the blockading vessels. This shows that only one out of six vessels which attempted to run the blockade of Wilmington and Charleston were captured or destroyed. Marcus Price estimated that 1,735 attempts were made at Charleston and Wilmington which equals to 1.23 attempts per day, with an 84 percent success rate. 11

A well handled steamer not bothered by mechanical problems could average about one round trip a month. Blockade-runners did not always run as regularly as claimed and had to rely on conditions of the blockade, the weather, mechanical conditions, quarantines, cargo availability, the moon, and the tides. It generally took a vessel sixteen days to unload and load another cargo at Wilmington. All persons connected with blockade-running tried to keep the time in port to a minimum. Local authorities were usually of great help in this respect especially if the captains of the blockade-runners made it profitable for them if they lend aid. Blockade goods were frequently sold to local officials below market prices or were given as outright gifts, these favors insuring many quick and profitable trips. 12


The loading of these vessels was handled in such a way as to utilize the small carrying capacities of the vessels. A famed blockade-running captain portrayed the loading procedure:

In the first place, the hold was stowed by expert stevedores, the cotton bales being so closely packed that a mouse could hardly find room to hide itself among them. The hatches were put on, and a tier of bales put fore and aft in every available spot on deck, leaving openings for the approaches to the cabins, engine-room and the men's forecastle; after which a few bales for the captain and officers... and the cargo was complete. Loaded this way the vessel with her low funnel, and grey painted sides, looked more like a huge bale of cotton with a stick placed upright at one end of it, than anything else I can imagine.13

After loading, the speedy vessels sneaked out of Wilmington and usually steamed to Nassau or Bermuda. The United States consul at Nassau kept a record of arrivals and clearances of blockade-runners at Nassau and Bermuda. Although very incomplete, it illustrates the growing popularity of Wilmington among blockade-runners after the middle of 1863. The records of Nassau show only one arrival or clearance from that port in the first half of 1863, and thirty-one for the second half. The records from Bermuda show vessels leaving or coming from Wilmington once during 1861, and 1862, but twenty-eight in 1863, and seventy-nine in 1864.14

Fragmented evidence shows the tremendous volume handled by the port of Wilmington during the war. Although only sporadic evidence exists, it clearly shows Wilmington's importance to the Confederate war effort. During the first seven months of 1863, forty-nine ships

13Roberts, Never Caught, 13.

14Records of Confederate Vessels, L.C.M.
arrived and cleared from Wilmington, while forty-one additional vessels visited the port during the following three months. During August one ran in every other day making fifteen for that month, four on July eleventh, and five on October nineteenth. 15

In 1863 Rear Admiral Samuel P. Lee estimated that an average of thirty-five vessels a month ran into Wilmington. James Randall, a clerk for a blockade-running firm in Wilmington, complained in October, 1863: "The Federal blockade has become very stringent recently so that a great portion of that trade may be directed from this port to Galveston." At the same time Randall pointed out there were eight or ten steamships in Wilmington. 16

During 1864, Wilmington experienced an even more rapid rise in commerce. In a period of six weeks during the months of May and June, eighteen vessels ran into Wilmington. From October 31 until December 2, just thirty-five days, twenty-one vessels left for Wilmington and nineteen successfully arrived. 17

The total number of vessels that entered Wilmington during the war is unknown. George W. Williams, the harbor master of Wilmington, estimated that from May 20, 1863, until December 31, 1864, 260 vessels

15Beeker, "Wilmington During the Civil War," 82; Scharf, History of the Confederate States Navy, 478.

16William Keeler to Anna Keeler, July 13, 1863, Daly, Aboard the U. S. S. Florida, 66; James R. Randall to Katie, October 6, 1863, Randall Collection, S.H.C.

17Alex MacRae to Don MacRae, June 8, 1864, Hugh MacRae Papers, Manuscript Department, Perkins Library Duke University, hereinafter cited as MacRae Papers, D.U.M.C.; James R. Randall to Kate, June 13, 1864, Randall Collection, S.H.C.; George A. Trenholm to Jefferson Davis, December 12, 1864, ORN IV, III, 954-957.
entered the Cape Fear. The Manchester Guardian estimated that from October 1, 1863, till December 31, 1864, 397 vessels successfully ran the blockade into Wilmington. Colonel William Lamb estimated that at least one hundred different steamers were engaged in running the blockade of Wilmington. 18

Large amounts of goods were shipped in and out of this port during the Civil War. The custom house in Wilmington reported that between January 1 and September 30, 1863, 30,851 bales of cotton were shipped on government account. Of these, 28,704 bales had been shipped from January to the end of July. From March 1 to December 1, 1864, 27,299 bales were shipped from Wilmington on government account, this cotton being worth $5,296,000 or in Confederate currency, $132,400,150. Major Thomas Bayne declared in 1863: "Five thousand bales of cotton will be sent out this month for war, navy, and treasury; 15,000 bales of cotton per month will be needed at Wilmington."19 Even with the near fall of Wilmington a correspondent of the New York Herald noted in January, 1865: "The utmost activity prevailed in the Anglo-Rebel blockade-running fleet plying between Wilmington and Charleston and Nassau. Cotton valued at $3,500,000 had been landed at Nassau from the above named ports within ten days."20


19 The Daily Journal (Wilmington), November 27, 1863; Vandiver, Flowshares Into Swords, 100-101; Scharf, The History of the Confederate Navy, 189.

20 Herald (New York), January 21, 1865.
Though accounts are incomplete, there are records of vast amounts of goods that came through the blockade into Wilmington. A detailed list of cargoes would be too detailed and labored to produce. A good example of the magnitude of the materials that were brought through the blockade is a list of importations at Wilmington and Charleston from November 1, 1863, until December 8, 1864: 21

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>1,507,000 pounds</td>
</tr>
<tr>
<td>Saltpeter</td>
<td>1,933,000 pounds</td>
</tr>
<tr>
<td>Boots and shoes</td>
<td>545,000 pairs</td>
</tr>
<tr>
<td>Blankets</td>
<td>316,000 pairs</td>
</tr>
<tr>
<td>Meat</td>
<td>8,632,000 pounds</td>
</tr>
<tr>
<td>Rifles</td>
<td>69,000</td>
</tr>
<tr>
<td>Coffee</td>
<td>520,000 pounds</td>
</tr>
<tr>
<td>Cannon</td>
<td>43</td>
</tr>
</tbody>
</table>

The arsenal at Columbia, South Carolina, received from Wilmington during the months of June and July, 1864:

170 bales of cartridge paper, 55 reams of the same for minnie ammunition, 1,000,000 pistol caps, 1,250,000 musket caps, 40 bundles of copper wire, 230 sheets of sheet brass, 196 sheets of sheet copper, 43 boxes of sheet tin, 32 bales serge and 3 cases machine sewing thread, on spools. 22

Governor Zebulon Vance of North Carolina commented that the North Carolina Quarter Master's Department brought in:

Large quantities of machinery supplies; 60,000 pairs of hand cards; 10,000 grain scythes; 200 barrels of blue-stone for wheat-growers; leather and shoes to 250,000

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22 Vandiver, Blockade Running Through Bermuda, xxxvii.
pairs; 50,000 blankets; grey woolen cloth for at least 250,000 suits of uniforms; 12,000 overcoats, ready made; 2,000 best Enfield rifles, [each] with 100 rounds of fixed ammunition; 100,000 pounds of bacon; 500 sacks of coffee for hospital use; $50,000 worth of medicines at gold prices, large quantities of lubricating oil. . . .

and much more. 23

The Manchester Guardian estimated that the English people alone had invested about $66 million in ventures into Wilmington from January, 1863, to December, 1864. In twenty-two months from January 1, 1863, until October 31, 1864, the quantity of cotton exported from Wilmington alone was 62,860,463 pounds or 137,937 bales. The Manchester Guardian estimated that the import and export trade of Wilmington in the year from July 1, 1863, to June 30, 1864, at $65,185,000. 24

During the entire war at all locations the Union navy captured 1,151 vessels and destroyed 355; but these figures include Confederate vessels of war. The estimated value of these vessels and their cargoes is $21,759,595.05, but $10,000,000.00 can be added to that figure for vessels stranded and destroyed, totaling about $41,200,000.00 in United States currency. The loss to the British alone is estimated at $30,000,000. 25


24 Times (New York), March 19, 1865.

25 RSN 1865, XXIX; James Sprunt, James Sprunt's Tales of the Cape Fear Blockade (Wilmington, 1960), 21, hereinafter cited as Sprunt, Tales of the Cape Fear Blockade; Bennett, The Steam Navy, 195-196.
The blockading vessels of Wilmington captured and destroyed approximately one hundred vessels during the war. While conceding that these figures are incomplete this still would amount to a great loss. If these vessels averaged three hundred tons, and an army wagon carried one ton of supplies, then the Wilmington flotilla destroyed an equivalent of thirty thousand wagon loads of supplies. This amounts to a sizable loss because of the amount of material that could be carried per thousand tons. For example: 192,000 rifles could be carried per thousand tons. Yet even with heavy losses such as these, the blockade-runners continued to operate profitably. The high profit margin insured the continuation of blockade-running as long as a vessel had the slightest chance of getting her cargo through.

The effectiveness of the blockade at Wilmington is extremely questionable. By examining the number of vessels stationed at Wilmington and comparing that figure with the number of vessels captured or destroyed, there should be some positive relationship between the two figures, but there is little. As the number of blockading vessels increased the number of blockade-runners captured and destroyed remains about the same. (See Figure 6.) A contributing factor to this relationship could be that in the early years of the war the slower and more unfit blockade-runners were captured, leaving the fastest and specially built vessels to operate during the latter half of the war.

26 Price, "Ships That Tested the Blockade," 215-237; Smith Stansbury to Josiah Gorgas, September 1, 1863, Vandiver, Blockade Running Through Bermuda, 91; Samuel P. Lee to Gideon Welles, July 1, 1864, ORN I, X, 222.
Fig. 6. The Effectiveness of the Wilmington Blockade.
The ineffectiveness of the Wilmington blockade can be attributed to a number of factors. The introduction of steam placed the concept of a blockade in a different light. The Union navy at the war's outbreak was not prepared to carry out a blockade, and at the same time abide by the international law. These points of international law were adopted before the advent of steam blockades. It was thus necessary for the nations of Europe to give these laws a wider interpretation in order to avoid confrontations. The Union navy kept a "paper blockade" at Wilmington and other ports for most of the war which only raised protests rather than any actions from Europe.

When the Union finally stationed a large number of vessels at Wilmington there were other problems that caused an inefficient blockade. The geography of the Wilmington area magnified their problems. The dual inlets, the shallow water, and poor visibility all reduced the effectiveness of the blockading vessels. The Confederate defenses in the Wilmington area played a decisive role in aiding the blockade-runners. Another factor contributing to the success of blockade-running was the poor positioning of vessels during the entire war. The navy concentrated many vessels in the sounds of North Carolina, in Virginian waters, and at Charleston; when in reality more were needed at Wilmington. The British in 1863 claimed that the blockade was "only nominal." But there was a trend toward efficiency. The "paper blockade" of Wilmington became more effective as the navy employed more vessels, and acquired a logistical base at Beaufort. At the war's end, the Union navy controlled much of the southern shoreline.

27 The Times (London), September 25, 1863
and employed over six hundred vessels off the Confederate held coast, but the blockade never became airtight. The blockade did not beat the Confederacy.
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**Dissertations and Thesis**


