

Dissertation Final Submission

The Effects of the Union Blockade on the Confederacy During the United States Civil War

of

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Chapter 1: Introduction

The United States Civil War tore the nation apart and cost the lives of more Americans than all its other conflicts combined. The war also had a major impact on the economies and daily life in both the North and the South. Even with the demands of a major war, the Northern economy grew and even doubled its exports of wheat, corn, pork, and beef.¹ In contrast, the economy of the South spawned new industries such as ordnance factories and machine shops, but this growth did not address necessities needed by the population. Southerners suffered from shortages of food, medicines, and clothing that sapped civilian morale and hampered the Confederate war effort. The Confederate government had to rely on its railroad system to move both civilian goods and military materiel. The railroad system proved inadequate and wore out under wartime conditions; this created more problems for the Confederate war effort. Deprivation of necessities and hunger defeated the Southern population long before the Confederate armies surrendered in the Spring of 1865.

Besides the ravaging of crops by Union raiding parties, how much of these deprivations and shortages can be attributed to four years of the Union naval blockade of Southern ports? How much credit does the Union navy deserve for the defeat of the Confederacy? What freedom of action did Gideon Welles, as the Union Secretary of the Navy, and Stephen Mallory, as the Confederate Secretary of the Navy, have on planning and strategy? How did the need to establish and maintain a blockade lead to the counterstrategies of the Confederate navy?

The Civil War has been studied by historians since its end in 1865. The war has been viewed as mostly a conflict on land. The naval aspects of the Civil War and its effects on the

¹ Emerson D. Fite. *Social and Industrial Conditions in the North During the Civil War* (New York: Frederick Ungar Publishing, 1968), 21.

Confederacy are also a very important aspect of Civil War history. While there are memorable naval events like the first battle between ironclad warships at Hampton Roads in 1862, historians are divided on the effects of the Union and Confederate navies on the war. Prominent historians, such as James M. McPherson, argue the naval portion of the war was just as important to the outcome to the conflict as the offensives by the Union army. Others, such as Craig L. Symonds, argue that Civil War navies had a lesser importance on the war, but did influence the military direction and length of the conflict.²

The Union blockade attempted to cut off the trade of the Confederacy with seemingly mixed results. Most historians do not focus on the long-term effects of the Union blockade. The historians that do, such as Stephen R. Wise and William N. Still, Jr., show that trade to Southern ports declined, but the Union blockade was very porous. Many blockade runners successfully skirted the Union patrolling ships and brought important cargoes into to the Confederacy. The 1,000 successful blockade running attempts should really be compared to the 20,000 ships that arrived or departed Southern harbors in the years before the war.³

During the war, most people in both the North and the South did not see the Union blockade as a serious threat. The Union's navy was mocked in newspapers in the North. Northern sailors commonly believed that blockade duty on their ships was boring and monotonous. Southerners also saw the blockade as a humbug that would not succeed. They knew the agricultural South had an abundance of food. No one imagined that the blockade of Southern

² James McPherson. *War on the Waters: The Union and Confederate Navies 1861-1865* (Chapel Hill: University of North Carolina Press, 2015), 1. Craig L. Symonds. *The Civil War at Sea* (New York: Oxford University Press, 2012), 209.

³ Steven R. Wise. *Lifeline of the Confederacy: Blockade Running During the Civil War* (Columbia: University of South Carolina Press, 1988). William N. Still Jr. "A Naval Sieve: The Union Blockade in the Civil War." *Naval War College Review* 36 (May-June 1983): 38-45.

ports would have much of an impact on the availability, cost, and distribution of food, clothing, and medicines in the Confederacy.

Many historians have focused their work on the military aspects of naval power. Much has also been written on blockade running and the ineffectiveness of the Union blockade. As valuable as these studies are, they do not emphasize the fact that sea power also influences other, less glamorous, but vitally important aspects of an economy and war preparations due to the lack of trade. These important aspects would be in finance, labor shortages, and the cumulative effects of hunger and lack of medicines.

At the beginning of the war, southern planters instituted their own blockade of exporting their cotton to Europe. This was in the hope that the lack of cotton would cause British and French merchants so much financial harm, they would put pressure on their governments to give diplomatic recognition to the Confederacy. This plan did not work as English and French merchants found other areas to obtain cotton for their mills. The meager profits on Confederate exports during the war had unforeseen effects on the financial system. Without exports, the Confederacy could not establish the credit to acquire large loans or bring in specie to support the Confederate monetary system.

The Confederacy also experienced labor shortages as enslaved African Americans made their way to Union bases that had been set up on the Southern coastline. These bases were to provide safe places for Union ships to anchor and resupply. They also became havens that protected the formerly enslaved and were considered part of the Underground Railroad system. Places like Tybee Island, Georgia and the islands of the Outer Banks in North Carolina were beacons of hope for enslaved people. Little by little, areas like these drained plantations of their enslaved labor force and caused a labor shortage in the Confederacy.

There are many primary sources written by people who lived in the Confederacy which show its devastating effects on their daily lives. The Union blockade appears to have severely hurt the Confederacy much more than historians have indicated in their valuable work. The blockade led to a spiral effect on the Confederate war effort with the loss of imports, a reliance on homespun manufacture, food shortages, and reliance on an over-used railroad system. The Union naval blockade created effects that were unimagined in the Confederacy. Its effects spiraled through Confederate trade, economics, the health of the population, and the overall Confederate war effort.

As the Union blockade on the Atlantic and Gulf of Mexico coastlines became more effective, the Confederacy tried many other countermeasures that were designed to pull Union naval ships and soldiers away from the blockade. These countermeasures were also designed to distract Union military resources from the coastline of the South and put them elsewhere. The Confederate Secret Service was active in procuring commerce raiders in Europe to wage war on Union merchant vessels. This would force the Union to pull blockading warships away to form hunter-killer squadrons to track these commerce raiders and protect the Union's merchant fleet.

The ingenuity of Southerners against the Union navy was impressive. With a much smaller naval budget and resources, the Confederate Navy relied on ingenuity and a fledgling industrial base to try to defeat the superior resources of the Union. The Confederate idea for the use of ironclad warships to combat the Union's wooden fleet was considered state of the art military engineering. Confederate use of mines, called "torpedoes" during the war, was a continuity of naval thinking from European great powers. Furthermore, the use of commerce raiders was a tried-and-true tactic that the fledgling American navy had successfully used

against the superior numbers of the Royal Navy in the American Revolution and the War of 1812.

The first group of historians to seriously study the effects of the Union navy on the war were a group of distinguished naval officers in *The Navy in the Civil War* series in 1883. James R. Soley served as the Superintendent of the naval war records office. He even began the editorial work on the famous *Official Records of the Union and Confederate Navies in the War of the Rebellion*. Soley's *The Blockade and the Cruisers*, Volume 1 of *The Navy in the Civil War*, discusses the deprivations of Confederate cruisers and the eventual seizure of all the Confederate ports. Admiral Daniel Ammen and Alfred Thayer Mahan were the other authors of the volumes in *The Navy in the Civil War* series. These volumes are workaday histories of the Union squadrons in the Atlantic and in the Gulf of Mexico and inland waters of the Mississippi.

Despite his later fame in *The Influence of Sea Power Upon History: 1660-1783*, written in 1890, Mahan's naval ideas were not fully developed in this early volume of the effects of sea power. Only once does he discuss the purposes of the Union blockade, "The blockade was not defensive, but offensive; its purpose was to close every inlet by which the products of the South could find their way to the markets of the world and to shut out the material, not only of war, but essential to the peaceful life of a people..."⁴

Later, in *The Influence of Sea Power Upon History* Mahan advocates for a system of coaling and supply depots to resupply ships. These coaling and resupply points had been evident in the Union blockade as the navy captured places like Cape Hatteras Inlet on North Carolina's Outer Banks, Port Royal Sound in South Carolina, and Tybee Island in Georgia. The other

⁴ Alfred T Mahan, *The Gulf and Inland Waters*. Vol. 3, *The Navy in the Civil War* (New York: Charles Scribner's Sons, 1883), 4.

authors in *The Navy in the Civil War* series wrote their historical works with little analysis of the effects of the navy on the Confederacy and its war effort. Their histories utilized naval records that focused on changes of ship captains and ship compositions of the fleets.

Other 19th century histories found an audience with the public with the daring exploits of Confederate agents and ship captains in Europe and on the high seas. James D. Bulloch, an uncle of future President of the United States Theodore Roosevelt, wrote his 1884 work *The Secret Service of the Confederate States in Europe or How the Confederate Cruisers Were Equipped* to explain how Confederate daring could outsmart the best efforts of the Yankees. His naval history shows the advantage that steam power gave Southern commerce raiders in both strategic and tactical opportunities unknown in earlier eras. Bulloch's history showed that a few ships, properly equipped with the latest technology, could have an impact far out of proportion to their numbers.

In John T. Scharf's 1887 *History of the Confederate States Navy*, he analyzed the Union blockade and the numbers of ships that successfully entered Southern ports. Scharf was one of the first to conclude the Union blockade was an ineffective "paper blockade."⁵

In the early 20th century, some historians such as William M. Robinson, Jr. focused on little known aspects of naval history such as his 1928 *The Confederate Privateers*. Robinson discussed the history of this aspect of Confederate naval strategy by utilizing newspapers and court records. He gives only a brief two-page analysis of how outmoded privateering was by 1861 and how it was more suited to earlier wars.

⁵ Thomas J. Scharf, *History of the Confederate States Navy: From Its Organization to the Surrender of Its Last Vessel* (New York: Gramercy Books, 1996), 442.

By the later 20th century, historians had sharp differences on the Union blockade's effect on the war. These eminent historians disagreed with each other. William N. Still concluded, in 1983, that the Union blockade "was not a major factor in the collapse of the Confederacy." Stephen R. Wise also concluded that, "at no time in the war did the Confederacy lack the proper tools of combat."⁶ James McPherson in his 1988 Pulitzer Prize winning work, *Battle Cry of Freedom: The Civil War Era*, gave some of his own thoughts on the importance of Union Sea power on the outcome of the war, "To maintain the blockade "won the war" for the North ... goes entirely too far. But it did play an important role in Union victory."⁷

In his 2012 work, *The Civil War at Sea*, Craig L. Symonds, argues that Civil War navies had a lesser importance on the conflict, but did influence the military direction of the war. He summarized an important point in his analysis of the blockade. "This forced the Confederacy to depend even more heavily on its mismatched, overburdened and rickety rail network."⁸

The disagreements of these prominent historians exposes a gap in the research about the effects of the Union blockade that this study will attempt to fill. The effectiveness of the Union blockade at stopping blockade runners from entering Southern ports is a moot point. Assessing the impact of Union Sea power to prevent the importation of normal trade goods and Union raiding parties that confiscated or destroyed commodities that were needed in the everyday lives of the men, women, and children of the Confederate States of America would be a better evaluation. Diaries and journals show that the blockade brought slow devastation to their lives.

⁶ William N. Still, "A Naval Sieve," *Naval War College Review* (May-June 1983), 45; Stephen R. Wise, *Lifeline of the Confederacy: Blockade Running During the Civil War* (Columbia: University of South Carolina Press, 1988), 8.

⁷ James McPherson, *Battle Cry of Freedom: The Civil War Era* (New York: Oxford University Press, 1988), 382.

⁸ Craig L. Symonds, *The Civil War at Sea* (New York: Oxford University Press, 2012), 41.

Deprivation of necessities such as salt, medicines, and food took a steep toll on the morale and nutrition of the Southern population long before the Confederate armies surrendered.

This study will use a combination of social history, economic history, and military history show the long-term effects of the Union blockade. It is for students of the Civil War who are already familiar with the history of the conflict but want to learn more about the consequences of the naval war and the Confederate responses to Union sea power.

Many Confederate diaries indicate that the Union blockade and the lack of trade severely hurt the Confederacy. It even led to a spiral effect to the overall Confederate war effort. This spiral effect from the Union blockade on Confederate trade, economics, and the overall Confederate war effort are the areas that will be examined in this study..

Research on this complex problem involved sources from different subcategories of history. Social history is able to illuminate the types of items that were in short supply in the South. Studying women's diaries and journals illustrated the necessities that they lacked to keep a household and feed a family while their husband, father, or brother had gone to serve in the forces of the Confederacy. These diaries and journals showed shortages of necessities but also underscored the ingenuity of the Southern population, at first, to deal with the shortages. "Everything the men wore was dyed and woven at home: pants were either butternut, blue, or light purple, occasionally light yellow; shirts, course, but snowy white or what would now be called cream."⁹ Early in the conflict, the Southern population was patriotically ingenious when it came to making substitutes for household items. "Willow wickerwork came in as a new industry with us. We learned to weave willow twigs into baskets of many shapes and sizes."¹⁰

⁹ Fannie A. Beers, *Memories: A Record of Personal Experience and Adventure During Four Years of War*. (Philadelphia: Press of Lippincott Company, 1888), 116.

Military history sources show what Union naval forces were doing to implement a blockade of Southern ports. For example, Alfred T. Mahan, who later became a famous naval strategist, was a Union naval officer during the Civil War. He wrote “The blockade was not defensive, but offensive; its purpose was to close every inlet by which the products of the South could find their way to the markets of the world and to shut out the material, not only of war, but essential to the peaceful life of a people...”¹¹ Blockade runners proved they could bring in some military supplies, but necessities of life such as basic food and clothing were not a priority.

Last, economic history shows how the Confederate government took control of the railroads in the Confederacy for their war effort. The railroads were used to transfer men and materiel around the Confederacy. Before the war, railroad lines were used to ship goods from production areas to Southern ports. The lack of tracks in the Confederate states turned out to be crucial. The railroads in the South fell into disrepair from overuse. Studies of railroads in the Confederacy agree on the same dismal conclusions, “For more than a year before the end came, the railroads were in such a wretched condition that a complete breakdown seemed always imminent.”¹²

Sources in these three different subcategories of history show that the Union blockade did not have to necessarily be extremely effective to have an alarming effect. A blockade just had to exist for its effects to occur over time. The volume of shipping that would have normally sailed

¹⁰ Parthenia A. Hague, *A Blockaded Family: Life in Southern Alabama During the Civil War* (Tuscaloosa: University of Alabama Press, 2007), 61.

¹¹ Alfred T. Mahan, *The Gulf and Inland Waters*. Vol. 3, *The Navy in the Civil War* (New York: Charles Scribner’s Sons, 1883), 4.

¹² Charles W. Ramsdell, “The Confederate Government and the Railroads,” *The American Historical Review* 22, no. 4 (1917) 809.

into and out of Southern ports was cut to a trickle. This had a compounded effect on the Confederate civilian population and war effort.

Very few historians have discussed the cumulative effects of the shortages and deprivations from the Union blockade on the South. One must go back to the early to mid-20th century to find studies. In her 1933 work, *Salt as a Factor in the Confederacy*, Ella Lonn argued that a lack of this vital substance hurt food preservation and leather tanning in the Confederacy. In her 1952 work, *Ersatz in the Confederacy: Shortages and Substitutes on the Southern Homefront*, Mary E. Massey discussed the deprivations that occurred across the Confederacy. Shortages of common items and essentials had a cumulative effect on civilian morale. Massey argued that austerity eventually led to starvation and despondency.

Even the Confederate armies, which received priority for supplies, were not immune from the shortages. Readers may be familiar with the argument made by Richard Beringer, Herman Hattaway, Archer Jones, and William N. Still in *Why the South Lost the Civil War* that the blockade did not have a detrimental effect on the supply for Confederate forces is supported by their evidence of successful blockade running attempts.¹³ This study goes further and examines the many other necessities of a 19th century army such as saltpeter, lead, copper, leather, shoes, blankets, and even horses that were needed in vast quantities. This study finds there were deficits in these crucial items that had an effect on Confederate armies. A lack of these items for the military caused changes in strategy, which affected smaller battles, skirmishes and lowered morale and the will to fight. The lack of these crucial items also made Southern armies less effective than they could have been.

¹³ Richard E. Beringer, et al. *Why the South Lost the Civil War* (Athens: University of Georgia Press, 1986), 63.

Military sources show that shortages of necessities in the Confederate armies could also lead to lower fighting ability and desertions. The Official Records of the Union and Confederate Armies in *The War of the Rebellion* show that the Confederate army suffered from a lack of food. In January 1863, Robert E. Lee informed President Jefferson Davis that the lack of regular supplies was hurting the efficiency of his army.¹⁴ The Confederate army also suffered from a lack of shoes for its units. In late 1863 James Longstreet reported that one half of his troops did not have shoes. In February 1864, Joseph Johnson lacked 13,000 pairs.¹⁵ It was not uncommon for poor food supplies to lead to desertion. Two deserters of a Texas cavalry company reported that their company lived for days on only berries and persimmons.¹⁶

Other military history sources such as James D. Bulloch's 1884 work, *The Secret Service of the Confederate States in Europe or How the Confederate Cruisers Were Equipped*, explained some of the countermeasures that small Confederate navy could take to try to destroy the merchant commerce of the North. His naval history shows the advantage that steam power gave to Southern commerce raiders with both strategic and tactical opportunities. Bulloch's history showed that a few ships, equipped with the latest technology, could have an impact far out of proportion to their numbers.

These three different subcategories of historical sources show how the cumulative effects of the Union blockade affected the Confederacy. The impact of sea power seems to have had a much larger effect on the civilian population and the overall Confederate war effort than has

¹⁴ *The War of the Rebellion: A Compilation of the Records of the Union and Confederate Armies*. Series I, XXI, 110.

¹⁵ *Ibid.* Series I, XIX, Part II, 614, 630; XXXI, Part III, 818: XXI, 1098.

¹⁶ *The War of the Rebellion: A Compilation of the Records of the Union and Confederate Armies*. Series I, XXVI Part II, 264; XXXI, 831.

been studied. Most historians have only evaluated the Union navy for its effects on military campaigns of the war. The blockade of Confederate ports had a significant effect on the South because it caused shortages of food and critical supplies. These shortages sapped the morale of the civilian population and led the Confederate government to rely on a railroad system which became overwhelmed under wartime conditions. The ingenious countermeasures against the effects of the blockade could not stem its destructive effects on the health, morale, and supply chains of the armies and civilian population of the South.

This work is divided into eight chapters that will explore in more detail the Union blockade and its long-term effects on the Confederacy. Chapter Two will focus on how historical blockades operated and their similarities and differences to the Union's blockade of Southern posts, its part to enforce a blockade, and overall Union naval strategy.

Chapter three discusses the actual Union naval strategy to choke imports and exports from the Confederate States of America. The idea of a blockade by Union ships was initially planned by General Winfield Scott, and famously nicknamed "The Anaconda Plan" by newspapers.¹⁷ Even though Scott's strategic vision to strangle the South was never implemented in the manner he outlined, in 1861 Union forces began to occupy strategic areas along the Southern coast. The blockade strategy was recommended by a Blockade Board and began with General Ambrose Burnside's and Admiral Du Pont's expedition that occupied Roanoke Island, New Bern, and Ft. Macon in North Carolina. This was followed by the strategic occupation of Tybee Island and Ft. Pulaski in Georgia. The fall of forts St. Philip and Jackson in 1862 gave the Union navy the key to also capturing the South's biggest port of New Orleans. The Union

¹⁷ Winfield Scott, *Memoirs of Lieut.-General Scott, LL.D.* (New York: Sheldon & Company, 1864), 627.

blockade ships were able to use these captured areas to rest or obtain supplies while they performed the humdrum duties of enforcing a blockade of Southern ports.

After these important initial victories, Southern military planners spent more time protecting harbors and augmenting their coastal forces. Even though the Southern permanent fortifications held up Union forces for as long as they were designed to do, the manpower shortage of the Confederacy was a deciding factor in how long fortifications could hold out against Union forces. Forts such as Ft. Macon and Ft. Pulaski were meant to also have a field army to help with the overall defense of the area. An enemy force that overcame the defenses of an isolated fort should not have been a surprise to any competent military officer.

Union naval attacks on Ft. Sumter were repulsed because the fort was supported by Confederate batteries on either side of the port and there were no systematic attacks to capture the supporting Confederate batteries. The 1864 attack on Mobile was a success because it was done incrementally. Ft. Gaines and Ft. Morgan were taken by siege tactics that allowed Admiral Farragut to utter his “Damn the torpedoes” order and be able to dash through the Confederate line of mines and take the port of Mobile, Alabama.

Chapter four focuses on how the Confederates tried to break the Union stranglehold on the South by siphoning naval resources away to protect Union merchant shipping, hunting Confederate commerce raiders, and developing other novel countermeasures. The blockade runners, of which important studies have been written, were operated for profit and speculation. The daring blockade runners ran the blockade for monetary gain. Their exploits also created more problems than they solved. Their imported goods led to inflation and an escalation of food prices across the Confederacy.¹⁸

Northern naval power generated some quite successful countermeasures from the tiny Confederate navy. The small Confederate navy had to rely on methods and tactics that small navies have traditionally used such as commerce raiders, privateers, and mines. The Confederate navy also had some ingenious ideas such as constructing the ironclad “Virginia.” This ironclad warship sent shock waves into the North on how to counter it. The Union came up with its own ironclad ship ideas to combat this threat.

Mines had been used in the Crimean War in Europe, but not to the extent they were used by the Confederacy. The Confederates mined most ports and waterways. Confederate mine warfare was ingenious for a navy with a limited budget. Their numbers and use were a threat to the numerically superior Union navy.

The Confederate use of privateers seemed like a way for ambitious and daring captains to capture Union ships and sell them and their cargoes for prize money. This form of warfare had historically been used by small navies against larger ones. Privateers been used with success by the United States in the War of 1812. In the mid-19th century, this proved to be a glaring failure.

One area where the Confederate navy shone was the use of commerce raiders. Even though they were few, they caused havoc among the Union merchant shipping fleet. Also, their use of steam power allowed them to be able to strike at merchant ships where they were not expected. It is a testament to their effectiveness that the last Confederate unit to surrender in November 1865, was a commerce raider.

Finally, attempting to counter Union naval power allowed truly novel weapons to be built to try and break the stranglehold of the blockade. One of these novel weapons was the submarine. Horace Hunley and his team of engineers pioneered different designs of

¹⁸ Robert B. Ekelund, Jr. and Mark Thornton, “The Union Blockade and Demoralization of the South: Relative Prices in the Confederacy.” *Social Science Quarterly* 73, No. 4 (December 1992): 891-893.

submersibles. Their work moved around Confederate ports from New Orleans to Charleston. Early designs of submersibles were tried. Finally, the H.L. Hunley, built in Charleston, was the world's first submarine to sink a ship. By attempting to break the Union blockade of Charleston, South Carolina, the H.L. Hunley submarine showed what could be possible for undersea warfare.¹⁹

Chapter five will focus on life on the Confederate home front. This chapter will show how Southern women coped with shortages of food and clothing. It will also answer the question of why agriculture in the South followed a pattern of specialization and many areas of the south were not self-sufficient and were unable to meet their local food needs. Early in the war, Southerners were able to deal with the shortages in enterprising ways such as using substitutes in recipes for ingredients such as wheat and sugar. Later in the war, as the blockade really tightened and the transportation system broke down, real hunger affected Southern families. Hunger will make reasonable people do things they normally would not do. The lack of food made people of the Confederate states desperate. Substitute ingredients were not enough to stem the pinch of hunger. Bread riots occurred in the capital, Richmond, and elsewhere.

Table salt may seem like an unusual substance to lack. Besides being an essential ingredient for good health, salt was commonly used as a meat preservative and in leather tanning. Salt was common in Northern states with salt mines in New York and other places. The blockade stopped its importation. The Confederacy had only two mines to supply all of their salt needs. The Union captured one important salt deposit near New Orleans in early 1862. After that, there was only one other salt mine in southwest Virginia to supply salt to the Confederacy. There

¹⁹ Tom Chaffin, *The H.L. Hunley: The Secret Hope of the Confederacy* (New York: Hill and Wang, 2008), 258-260.

were battles over this salt mine and raids to destroy the railroad tracks that led to it.²⁰ The shortage of salt prompted industries to be set up on the coastline of the Confederacy to produce salt. Union raiding parties continued to destroy these operations during the war.

The blockade even cut off the Confederacy from its usual supply of medicines. Soldiers and civilians suffered from the lack of medications. “We were then in straits for everything considered indispensable in the outfit of modern hospitals... I can say that our experience was continually shocking and distressing...”²¹ Substitute medications were found in Southern fields and forests; Southern botanists described the plants that could be used for medications.²² Many of these substitutes were home remedies, but others were homeopathic substitutes for manufactured medications. These plant-based substitutes were meant as a stopgap measure until the time when the supply of medications could be restored.

Chapter six will focus on the lack of supplies in the Confederate military forces. Most of these shortages were caused by the effects of the Union blockade and the inability of the Confederate government to effectively manage and repair their railroad system. The Confederate government took control of the railroads in the South to try and move war materiel to areas where it was needed. The reliance on the railways strained this resource to the breaking point as spare parts for locomotives and rolling stock were in short supply and new rolling stock was not being manufactured. Confederate forces were forced to make forays to capture much-needed food and supplies from Union depots. The lack of food and military supplies was always

²⁰ Ella Lonn, *Salt as a Factor in the Confederacy* (Tuscaloosa: University of Alabama Press, 1965), 188-203.

²¹ Mrs. Burton Harrison, *Recollections Grave and Gay* (New York: Charles Scribner’s Sons, 1912), 188

²² Francis P. Porcher, *Resources of the Southern Fields and Forests, Medical, Economical and Agricultural* (Charleston: Walker, Evans, and Cogswell 1869).

a problem for Confederate armies. “To be one day without anything to eat was common. Two days’ fasting, marching and fighting was not uncommon, and there were times when no rations were issued for three or four days.”²³ The lack of shoes and horses for Confederate armies hobbled their offensive capabilities. Even the comparatively well-supplied Army of Northern Virginia had serious problems obtaining quality horses and food for its soldiers.²⁴

Chapter seven will focus on how the blockade affected the railroads in the states that formed the Confederacy. The Confederate government believed that it could solve the food shortages and use their railroads for military purposes, too. The plan was to distribute food from areas that produced much to areas in need, as well as move troops. The government took over some of the railroads but used them very inefficiently as no one could say which cargoes had priority. The Confederate government never mobilized its railroads for its war effort.²⁵ This was one way they limited their prospects for victory. One example was using the railroads was to transport beef from cattle producing areas such as Texas and the trans-Mississippi to be shipped East to feed people and armies. The railroads were relied on but were not up to the task as they fell into disrepair from lack of spare parts. Union raids also captured vital railroad links and supply depots.

The abundant prewar Southern cattle herds dwindled as cattle were slaughtered, but the herds were not regrown. The lack of fodder and the lack of salt meant that the beef could not be

²³ Carlton McCarthy, *Detailed Minutiae of Soldier Life in the Army of Northern Virginia, 1861-1865* (Lincoln: University of Nebraska Press 1993), 57.

²⁴ Charles W. Ramsdell, “General Robert E. Lee’s Horse Supply, 1862-1865,” *The American Historical Review* 35, No. 4 (July 1930) 759-761.

²⁵ John E. Clark, Jr, *Railroads in the Civil War: The Impact of Management on Victory and Defeat* (Baton Rouge: Louisiana State University Press, 2001), xii.

preserved. Later in the war, beef cattle from Texas could not be transported on the dilapidated railroads as Union troops controlled the Mississippi River.

The last chapter sums up the effects of the blockade and discusses the war weariness that affected the Confederate population late in the war. Confederate women's diaries and journals show the final agony of the Confederacy. Hunger and lack of necessities led to despondency about the war and the Confederate cause. "Our breakfast, at 8 A.M., consisting of corn-bread with the drippings of fried bacon instead of butter, and coffee made of dried beans and peanuts, without milk or sugar. For luncheon we had, day in and day out, bacon, rice, and dried apples sweetened with sorghum."²⁶ With desertions on the rise in Confederate armies, the toll of the Union navy's blockade on imports and trade to the Confederacy became a significant factor in the war. The Southern population was defeated long before the Confederate armies surrendered in the Spring of 1865. The lack of essential substances such as salt, food, clothing, and medicines were just as great a measure to defeat the Confederacy as battlefield victories.

Even though this work will mainly focus on economic history, social history, and military history. It will also include the overall trend of including race, class, and gender into the work. Women's diaries are used. In this study, primary sources were utilized that illustrated how the blockade affected daily life in the Confederacy. The naval aspects of the Civil War will be evaluated as to their overall impact on Confederate economics, naval activity, and the duration of the conflict. In recent scholarship on the Civil War, historians have also argued for its inclusion as part of Atlantic History.²⁷ The United States Civil War is not insulated from general trends in

²⁶ Mrs. Burton Harrison, 191.

²⁷ Barbara P. Josiah, "African Diaspora Sailors from Latin America and the Caribbean in the Union Civil War Navy" *The Journal of Caribbean History* 51, No. 1 (2017) 28-57.

historical scholarship that include multiculturalism, diversity, and the conflict's part in Atlantic History. This trend can only strengthen further research about this conflict and highlight its multiracial and multicultural nature.

In conclusion, this study will investigate the naval aspects of the United States Civil War and illustrate their importance to the conflict. The effects of the naval war spiraled throughout the Confederacy as many other unforeseen problems arose from the lack of imports, but ingenuity helped Southerners to cope for a while with the shortages. The blockade showed the cumulative effects from the lack of trade as it affected many aspects of the Confederate home front and war effort.

Chapter 2: Historical Blockades

On April 19, 1861 President Abraham Lincoln declared a blockade of the Southern states. Lincoln's blockade was like no other blockade in modern times. It was a proclamation made by a sitting president declaring a blockade against a rebellion in a nation's own coastline and ports.²⁸ Lincoln's blockade was part of a strategy that would slowly strangle the South by cutting off its access to trade. This blockade would prove to be a tool to slowly strangle the South's economic lifeline.

Commercial blockades are directed against merchant vessels. This is a different concept from a military blockade which entails confining a fleet of hostile warships in their harbor by stationing a squadron of military warships outside of it. Commercial blockades are not necessarily military operations, but they are usually conducted by military forces. Unfortunately, in the history of blockades there has never been a naval blockade that could provide absolute surety against evasions (blockade running) of the blockading squadron.²⁹

The blockade of the Southern ports was a task for the United States Navy. In Lincoln's administration the energetic Secretary of the Navy, Gideon Welles, set about making a strategy to enact a blockade with the limited number of ships at his disposal. He appointed a board of professionals that would make recommendations on how the navy could support Lincoln's proclamation. This board would try to resolve the question of how a blockade could be effective

²⁸ "Proclamation 81—Declaring a Blockade of Ports in Rebellious States" The American Presidency Project, last modified May 12, 2012. <https://www.presidency.ucsb.edu/documents/proclamation-81-declaring-blockade-ports-rebellious-states>.

²⁹ Gray, Colin S., *The Leverage of Sea Power: The Strategic Advantage of Navies in War*. New York: The Free Press, 1992.

over the shoreline mileage of half of the nation.³⁰ Shoreline mileage would include the thousands of coastal miles of every bay, offshore island, sound, river, and creek from Maryland to southern Texas.

This Blockade Board was unofficially known as the “Du Pont Board” after its chairperson, Captain Samuel Francis Du Pont. Du Pont had much practical experience with blockades from his experience in the Mexican War and was under no illusions that the entire coast had to be blockaded. All that was essentially required was to blockade the major ports. “Then too, I see *bungling*, and the ideas are crude everywhere: the people are talking of two thousand miles of coast, etc. We have to cover the *ports of entry* – that is all the foreign interest has to require;”³¹ Along with Captain Du Pont, the Blockade Strategy Board consisted of two other experienced navy men and other civilian experts. The Du Pont Board met a number of times starting in June, 1861. It made periodic recommendations to the Secretary of the Navy about how a blockade could be implemented against the states of the Confederacy. The blockade of the South was part of General Winfield’s Scott’s idea of how to defeat the Confederacy. Later, it fit into General McClellan’s overall grand strategy to defeat the Confederacy.³²

Among its recommendations, the Blockade Board recommended several strategies that had already been tried in previous wars. Along with the idea that not every mile of the Confederacy’s seacoast had to be blockaded. The Blockade Board recommended only blockading the major ports of the Confederate states, defending two coastal forts, and seizing

³⁰ Du Pont, Samuel F., *Samuel Francis Du Pont: A Selection from His Civil War Letters* (Edited by John D. Hayes. 3 vols. Ithaca, NY: Cornell University Press, 1969), Vol I. 71.

³¹ Du Pont, Vol. I. 74.

³² Sears, Stephen W. (Editor), *The Civil War Papers of George B. McClellan: Selected Correspondence, 1860-1865* (New York: Da Capo Press, 1992), 71-75.

coastal areas that could be used to resupply and refit Union ships.³³ The navy was to assign ships to blockading squadrons that would perform the blockade by controlling access to ports and protecting the remaining coastal forts of the United States that were still in Confederate territory.

The Blockade Board recommended blockading the major ports of Wilmington, Charleston, Savannah, Pensacola, New Orleans, and Galveston. The board also advocated the defense of Fort Pickens off Pensacola and seizing coastal areas such as islands in the Outer Banks that were to be used for refit and resupply areas for Union ships.

At the time of the United States Civil War, the only international agreement on blockades was the 1856 Paris Declaration Respecting Maritime Law. This Declaration abolished privateering, but the Paris Declaration defined what a blockade was and that it had to be effectively enforced if the blockading power was to have the legal authority to stop and search ships entering or leaving a blockaded port. Blockades were said to be void if they were not enforced. These unenforced blockades were called “paper blockades”. The United States government did not sign and ratify the Paris Declaration. In 1861, the United States said it would respect the principles of the agreement. This declaration was a step in the process of establishing international law regarding blockades. Before the 1856 Declaration of Paris, historic blockades were proclaimed by one power on another. The effectiveness of historic blockades is a matter of debate.

The naval strategy of a blockade goes back far in history. For the purposes of this study, only the most recent historic blockades to the United States Civil War will be compared to it. The most recent blockades occurred during the Seven Years’ War, the American Revolution, the

³³ Du Pont, Vol. I. 86.

Napoleonic Wars, the War of 1812, the Mexican War, and the Crimean War. These historic blockades all displayed different strategies that were also used during the American Civil War.

The British Royal Navy had much experience enforcing blockades on her enemies. During the Seven Years' War, the Royal Navy conducted blockades on France. Not every part of the coastline would be subject to the blockade, but only the main military ports of Brest and Toulon. These naval blockades were "close blockades", where naval ships cruised off the ports to enforce that no enemy ships entered or left. British admirals Hawke and Anson devised a method to rotate ships that were blockading Brest to allow for rest and refit.³⁴ The French fleets in these ports were forced to wait until the British warships left their stations due to bad weather or having to refit and rest the crews of the warships. The French fleets that sortied from these ports were defeated in the decisive naval battles of 1759 of Lagos and Quiberon Bay. These naval defeats and the British blockade of Brest and Toulon had an impact on French civilian and military morale.³⁵

At the start of the American Revolution, England had an overwhelming naval power advantage over her 13 American colonies. The colonies did not have warships that could challenge the British Royal Navy. The British had closed the port of Boston with the so-called Intolerable Acts in 1774. Due to the deterioration of her navy after the Seven Years' War, Britain's naval forces did not have the numbers of ships to enforce a blockade of all the ports, but devised a different strategies for blockading belligerent naval forces.

³⁴ Anderson, Fred, *Crucible of War: The Seven Years' War and the Fate of Empire in British North America, 1754-1766* (New York: Alfred A. Knopf, 2000), 381.

³⁵ Corbett, Julian S., *England in the Seven Years' War* (London: Longmans Green, 1907), Vol. II. 86.

After the British were forced to evacuate Boston, the British pulled their naval forces back to Halifax, Nova Scotia and established a “far blockade”. This strategy was also used in European waters. A far blockade is a strategy where a naval fleet watches for activity from a nearby port, then reacts to the enemy naval activity. It is not meant to close off all trade, but to try and intercept enemy naval forces if they sortie from port.

The British also devised a new strategy to ensure their blockade of the coastline of their 13 colonies would be effective. This was to physically occupy major port cities in the 13 colonies. During the war, New York, Philadelphia, Charleston, and Savannah were occupied. The last major battle of in the colonies was at Yorktown; a small anchorage on the James River that was to be used by Lord Cornwallis’ forces as a base of operations.

The effectiveness of the British blockade of the American colonies during the American Revolution is a matter for debate. Very incomplete records indicate that trade entering American ports in the early part of the war was curtailed as much as 70%. There was much smuggling and shipping was still able to enter American ports that were blockaded.³⁶ After 1778, since the Royal Navy lacked the numbers of ships to match the various enemy fleets that declared war on her, they practiced far blockades of European ports. Royal Navy squadrons were forced to react to the movements of French fleets after they discovered French fleets had left their ports. Royal Navy squadrons then chased French squadrons across the Atlantic Ocean, hoping to catch them. By 1782, the British squadron based in New York devastated the merchant shipping of southern New England and patriot-held New York.³⁷

³⁶ Buel, Richard, Jr., *In Irons: Britain's Naval Supremacy and the American Revolutionary Economy* (New Haven: Yale University Press, 1998) 39-42.

³⁷ Buel. 226.

During the Wars of the French Revolution and the Napoleonic Wars, the blockade of the French ports varied from close blockade to far blockade, depending on which admiral was in command of the Royal Navy. Since the Royal Navy had to try and match the numbers of enemy naval forces, only the main enemy fleet anchorages were blockaded. These included Brest, Toulon, and Cadiz.

Admiral Howe preferred a far blockade of Brest. During 1794, his squadrons of the Channel Fleet reacted to news of a grain convoy being escorted into Brest. The resulting Battle of Ushant or The Glorious First of June, was a great victory for the Royal Navy. Some French ships were captured, but the grain convoy got through to Brest.³⁸ Other British admirals conducted close blockades of Brest when the threat of a French invasion during 1803-1805 was especially high.

The British Mediterranean fleet, commanded by Admiral Nelson, conducted a far blockade fleet to blockade the port of Toulon. Nelson's fleet anchored in the northern Sardinian anchorage of Maddelena Island, what the British called "Agincourt Sound". When Nelson's frigates reported the French fleet had left Toulon in October 1805, he went after it in pursuit. His squadron instituted a close blockade of Cadiz, then caught the combined French and Spanish fleet as it sortied from the port.³⁹ The resulting battle was the famous Battle of Trafalgar. Even though the Royal navy could bring Napoleon's fleet to battle, the economic blockade of the continent was less effective. British policy was to trade with nations that were trying to skirt Napoleon's Continental System, such as Denmark and Russia.

³⁸ Gardiner, Robert, (editor), *"The Glorious First of June". Fleet Battle and Blockade: The French Revolutionary War, 1793-1797* (London: Chatham Publishing, 2005), 38-39.

³⁹ Best, Nicholas, *Trafalgar* (London: Weidenfeld & Nicolson, 2005), 180-181.

The restriction of the United States' trade with Europe was a major factor in the United States' declaration of war on England in 1812. Since the British Royal Navy was concentrating on defeating Napoleon, its squadron in North American waters did not have the number of ships required to blockade American ports, capture United States warships, and protect shipping from American privateers.⁴⁰ The British squadron conducted a far blockade on Boston and other ports in New England by keeping a force in Halifax. More ships would be sent to North American waters when Napoleon was on the defensive and after he abdicated.

By early 1813, the Royal navy made a new blockade strategy against its American opponent. Chesapeake Bay was blockaded, along with New York, Savannah, and Port Royal. British warships were now forced to sail in pairs in order to not get picked off by the large American frigates as they had been in the last six months of 1812.⁴¹ The commander of the British squadron at Halifax was instructed to be indulgent with the ports of the New England states in order to foster the antiwar sentiment there and encourage division between them and the southern states.⁴² By 1814, the New England antiwar sentiment had not affected the war as much as the British had hoped, so New England was also blockaded.

During the War of 1812, the British Admiralty never envisioned a blockade of American ports that promised total containment.⁴³ Their naval efforts along the American coast did not even have the effects the admirals believed they would. Naval bombardments on towns such as

⁴⁰ Goldenberg, Joseph A., "The Royal Navy's Blockade in New England Waters, 1812-1815" *The International History Review* 6, no. 3 (Aug. 1984), 427.

⁴¹ Goldenberg, 428.

⁴² Op Sit. 426.

⁴³ Dudley, Wade G., *Splintering the Wooden Wall: The British Blockade of the United States, 1812-1815* (Annapolis, MD: Naval Institute Press, 2003), 134.

Stonington, and Ft. McHenry in Baltimore did not make those targets surrender. The British blockade of American ports during the War of 1812 did not devastate American shipping.⁴⁴ Its implementation during this short war was mainly an inconvenience to Americans. Peace was concluded in December 1814 in Ghent.

A long-serving American sailors and officers such as David Farragut, David Porter, Samuel Du Pont, and David Conner began their career in ships that had fought in the War of 1812. By the time of the Mexican War from 1845-1848, officers such as David Conner has risen through the ranks and were in command of squadrons. Commodore David Connor's Home Squadron operated in the Gulf of Mexico and blockaded the port of Veracruz.

The important Mexican port of Veracruz was to be occupied and used as a supply base for General Scott's advance on Mexico City. This was a strategy very similar to the one the British had used during the American Revolution. Veracruz was taken by American forces by a strategy that was to be used many times during the American Civil War. The port of Veracruz was taken, then occupied by American troops with a siege operation.

The American army's siege and capture of Veracruz with its fortress of San Juan de Ulua was conducted using tactics from the 17th century. Siege trenches called parallels were constructed around the city.⁴⁵ Saps were dug closer to the city wall so that new parallels would eventually enclose the city only 700 yards from its walls.⁴⁶ The American forces used 24 pounder Coehorn mortars and howitzers during the siege. The Coehorn mortar had been invented in the late 17th century and was a part of most nations' artillery arsenals. After continuous

⁴⁴ Dudley, 147.

⁴⁵ Bauer, K. Jack, "The Veracruz Expedition of 1847" *Military Affairs* 20, no. 3 (Jan. 1956), 168.

⁴⁶ Robert Anderson, *An Artillery Officer in the Mexican War: Letters of Robert Anderson, Captain 3rd Artillery, U.S.A.* (Freeport, NY: Books for Libraries Press, 1971), 78, 84.

bombardment, the city of Veracruz with its fortress of San Juan de Ulua surrendered 15 days after General Scott's army had besieged them.⁴⁷ United States forces marched into Veracruz and the fort of San Juan de Ulua on March 29, 1847.

In the Pacific, United States forces accepted the surrender of Monterey and Yerba Buena California with the presence of warships. These ports were then occupied. Other Mexican ports on the Pacific Ocean, such as Mazatlan, were blockaded by small squadrons of American warships.⁴⁸ Without a friendly port to obtain supplies, the squadron had to rely on supply ships for provisions. Longer periods of rest for the crew had to be taken all the way in Hawaii.⁴⁹

Future commanders of the United States Navy gained valuable experience with blockades during the Mexican War. Operations of squadrons to blockade Mexican ports would be used again during the Civil War on a larger scale. The siege tactics that were used to take Veracruz in 1847 would also be used again during the Civil War. The occupation of ports, the need to establish nearby anchorages for the refit of ships and rest for a weary crew were also lessons that would be used from 1861-1865.

Another conflict that occurred a few years before the Civil War that had an effect on the Union blockade was the Crimean War from 1854-1856. Like the Civil War, the Crimean War featured steam-powered iron warships and railways that supplied armies. The British and French fleets blockaded the Russian port of Sevastopol while land forces besieged it. Britain also used a fleet to conduct operations in the Baltic Sea.

⁴⁷ Anderson, 101.

⁴⁸ Duvall, Marius, *A Navy Surgeon in California, 1846-1847: The Journal of Marius Duvall* Edited by Fred B. Rogers. (San Francisco: John Howell, 1957) 69.

⁴⁹ Downey, Joseph T., *The Cruise of the Portsmouth, 1845-1847: A Sailor's View of the Naval Conquest of California* Edited by Howard Lamar. (New Haven, CT: Yale University Press, 1958) 103.

The siege of Sevastopol was similar to the blockade of many Southern ports during the Civil War. The Russians used sunken blockships and underwater torpedoes (mines) to defend Sevastopol Bay from the British and French naval forces.⁵⁰ Like some Confederate ports such as Savannah, the Russian underwater defenses helped the attackers in their blockade of the port. Any friendly ships could not enter Sevastopol Bay and Russian warships did not sortie out of Sevastopol. Elements of the British and French navies cruised outside the entrance to the port in a close blockade. When they bombarded forts around Sevastopol, their attacks were ineffective.⁵¹ The British and French had to occupy anchorages in the Crimean peninsula to refit and repair their ships. Also, the crews needed a place to rest. The occupation of the small anchorage of Balaklava was used to refit ships and supply the British and French armies besieging Sevastopol.

Since most Russian commerce passed through the Baltic Sea, the British fleet sent to the Baltic sought to destroy this flow of goods. The approaches to large Russian bases of such as Kronstadt and St. Petersburg were protected by underwater torpedoes (mines), so the Royal Navy avoided them. Instead, the British focused on bombarding ports where they could find Russian merchant vessels to destroy Russian commerce.⁵² Many Russian merchant ships used the harbors of the Grand Duchy of Finland. This is where the British focused their efforts. The British fleet sent raiding parties to neutralize coastal fortresses such as Bomarsund and bombarded ports such as Sveaborg. The effort of the British fleet in the Baltic, in conjunction with the fall of Sevastopol, brought the Russian Tsar to the negotiating table.

⁵⁰ Duckers, Peter, *The Crimean War at Sea: Naval Campaigns Against Russia, 1854-1856* (South Yorkshire, UK: Pen and Sword Maritime, 2011), 60.

⁵¹ Duckers, 66-67.

⁵² Greenhill, Basil and Ann Giffard, *The British Assault on Finland 1854-1855, A Forgotten Naval War* (London: Naval Institute Press, 1988), 155-157.

Even though historical blockades shared some similarities and differences to the Union blockade of Southern ports, the Union blockade shared more similarities to the Royal Navy's blockade of Germany in the First World War. The effect of the Royal Navy's blockade on the German population from 1914 to 1919 caused similar effects to the population of the Confederacy. This included the curtailment of imported goods and food. The Royal Navy's blockade also caused a drop in the morale and will to fight of the civilian population.

The Royal Navy practices a far blockade of Germany from 1914 to 1918. The main anchorage for their battlefleet was Scapa Flow in the Orkney Islands. From here, Admiral Jellicoe and later Admiral Beatty were kept apprised by Room 40 of any attempt of Germany's High Seas Fleet to try to raid the English coast or to lure parts of the Royal Navy into a trap. The German High Seas Fleet was never able to break out of the North Sea.

Like the Confederacy, there were too few German commerce raiders practicing a *Guerre de Course* on the British merchant marine. The four most effective of the German surface raiders sank just over 450,000 tons of shipping.⁵³ The effect of the German commerce raiders in World War I was mostly one of annoyance because of their low numbers. By 1915, nearly all the German raiders had been swept from the seas.

Like the Union blockade, the British blockade caused a spiral effect on the German population. During the conflict, German government thought it could win the war before any effects of the blockade could seriously hamper the war effort. The long war ensured the effects of the blockade reverberated throughout Germany. The war and blockade put a strain on German living conditions and helped to cause strikes and political unrest.⁵⁴ During the war, the drafting

⁵³ Humphrey, John (editor), *German Surface Raider Warfare: The Ships and Operations of the German Imperial Navy During the First World War, 1914-1918* (East Yorkshire, UK: Leonaaur, 2017), 8-9.

of too many critical railway workers along with a labor shortage caused the railways to fall into disrepair.⁵⁵ The overwhelmed railways and poor harvests caused the lack of transport of goods and foodstuffs to urban areas. When there was food and clothing to be found in large cities like Berlin, and it was expensive and of very poor quality.⁵⁶ Like Richmond during the Civil War, inflation and lack of food to purchase prompted many German cities in 1917 and 1918 to open public soup kitchens.⁵⁷ The British blockade did not work quickly, but the slow strangulation of the German economy and the American forces pouring into France had a great effect on the civilian population and their willingness to continue the war in 1918.⁵⁸

In conclusion, the Union Blockade of the South was part of the overall plan of the North to defeat the Confederacy. A blockade is a slow, patient strategy that is both offensive and defensive in nature. The Union blockade prevented normal trade to be conducted into Southern ports, while also limiting the Confederate navy from utilizing its sea power. The Union navy took the experiences of the British Royal Navy in the American Revolution and its own experience in the Mexican War to devise a blockade strategy for the Civil War. Anchorages were established so the Union navy could conduct close blockades of the most important Southern ports. When forces were built up in sufficient strength, ports of the Confederacy were occupied.

⁵⁴ Davis, Belinda. *Home Fires Burning: Food, Politics, and Everyday Life in World War I Berlin* (Chapel Hill: The University of North Carolina Press, 2000, 180-182.

⁵⁵ Schreiner, George A. *The Iron Ration: Three Years in Warring Central Europe* (New York: Harper and Brothers Publishers, 1918) 268-270.

⁵⁶ Blucher, Princess Evelyn. *An English Wife in Berlin: A Private Memoir of Events, Politics, and Daily Life in Germany Throughout the War and the Social Revolution of 1918* (New York: E. P. Dutton and Company, 1920), 234.

⁵⁷ Schreiner, 257-259.

⁵⁸ Blucher, 231.

The effects of the Union blockade would be most like the effects of the Royal Navy's blockade of Imperial Germany during the First World War. They were devastating to the Confederacy.

Chapter 3: Union Blockade Strategies

Union ships formed blockades by cruising or anchoring off Southern ports in what was called a “close” blockade. This strategy had been used by the British Royal Navy during the Napoleonic Wars and by the United States Navy during the Mexican War. Mexican ports in both the Gulf of Mexico and the Pacific Ocean were blockaded. Any ships attempting to get into Mexican ports had been stopped and boarded by sailors. Even skirmishes with enemy vessels were common.⁵⁹

Physically occupying enemy ports was a relatively new strategy used by the United States Navy during the conflict with Mexico. In the Gulf of Mexico, the port of Tabasco was stormed by a large party of armed sailors from the Home Squadron.⁶⁰ The important port of Veracruz with its fort of San Juan de Ulua was taken and used as a supply base for General Scott’s force to advance on Mexico City.⁶¹

During the Civil War, blockading Union warships would anchor about three miles from the entrance to Southern harbors during the daytime. At night, they would move in very close to the entrance and use small picket boats to signal to the fleet when a vessel was attempting to run out of the harbor.

Violations of the blockade were very rarely attempted in the daytime. The vessels engaged in this hazardous occupation took advantage of the darkest nights to run in or out: but in many instances where they escaped the vessels blockading the entrance, they were caught after daylight by our fast outside cruisers.⁶²

⁵⁹ Marius Duvall, *A Navy Surgeon in California, 1846-1847: The Journal of Marius Duvall*. Edited by Fred B. Rogers (San Francisco: John Howell, 1957), 69.

⁶⁰ Fitch W. Taylor, *The Broad Pennant: Or, A Cruise in the United States Flag Ship of the Gulf Squadron, During the Mexican Difficulties, Together with Sketches of the Mexican War, From the Commencement of Hostilities to the Capture of the City of Mexico* (New York: Leavitt, Trow and Company, 1848. Reprinted by the University of Michigan Libraries, 2020), 298-304.

⁶¹ K. Jack Bauer, *The Mexican War, 1846-1848* (New York: Macmillan Publishing Company, 1974), 259.

Waiting for ships to try to slip into or out of the ports was one of humdrum and monotony. Off Charleston, one sailor noted in his journal for different days, “A very pleasant day, and nothing has occurred to destroy its monotony... Uninterruptedly all day doing nothing. Our anchor was not lifted. I employed myself reading the newspapers obtained yesterday from the *Connecticut*.”⁶³

Other officers had the same opinion of blockade duty. Warship crews tried to entertain themselves. One Union officer in the James River blockading squadron wrote, “As the advance to Richmond had been indefinitely postponed the officers and crew of the frigate tried to make the best of their disappointment, and every evening could be heard singing or music fore and aft.”⁶⁴

The monotony of blockade duty was broken when blockade runners were active. Blockading ships attempted to chase and capture the blockade runners. Captured vessels would become prizes for the Union navy. John Grattan wrote, “On the tenth of October the *Montgomery* discovered a blockade runner and after a long chase captured her. She proved to be the *Bat*, a splendid side wheel steamer with a valuable cargo of machinery.”⁶⁵

When Union blockading ships captured or stopped blockade runners, they believed they had rendered valuable service to the Union cause and stopped much traffic into and out of Southern harbors. A Union naval officer proudly wrote, “The *Night Hawk* made the fiftieth

⁶² John W. Grattan, *Under the Blue Pennant or Notes of a Naval Officer 1863-1865*. Edited by Robert J. Schneller (New York: John Wiley and Sons, 1999), 67.

⁶³ Craig L. Symonds (editor), *Charleston Blockade: The Journals of John B. Marchand, U.S. Navy 1861-1862* (Newport: Naval War College Press, 1976), 136.

⁶⁴ Grattan, 76.

⁶⁵ *Ibid.*, 132.

blockade running steamer captured and destroyed off Wilmington while the squadron was under the command of Admiral Lee and the aggregate loss to the enemy and their friends could not fall short of twelve millions of dollars.”⁶⁶

Besides Union naval ships cruising off Southern ports, the Union navy worked in conjunction with the Union army to conduct operations on land. In modern military terminology they conducted “joint operations.” Besides the use of Marines to conduct raids, the United States Navy had a history of conducting joint operations with the United States Army that went back to the Mexican War. These joint operations aimed to occupy enemy ports and establish bases along an enemy’s coastline. The siege of Veracruz in 1847 and the surrender of the city and the fort of San Juan de Ulua was an example of a large joint operation.

The joint operation against Veracruz was conducted as a siege with the use of tactics from the 17th century. In fact, the tactics of besieging a port city or besieging a fort had not changed since the 17th century. The generals and admirals in the American Civil War used the same tactics to besiege enemy fortifications as had been used in many previous conflicts. These tactics were practiced by generals who followed the ideas of the great French military engineer, Sebastien Leprestre de Vauban.

Sebastien Leprestre de Vauban worked under the French king Louis XIV and became an influential French expert on fortifications and siegeworks. Vauban built French forts in the famous five pointed "star-shape" design. Each point of the star contained a heavily fortified bastion. His designs were used in many forts throughout the world including forts in the United States. Fort McHenry outside Baltimore is an example of this type of design. Vauban also wrote a textbook, *A Manual of Siegecraft and Fortification*, that was commonly used to train engineers

⁶⁶ Grattan, 132.

in different military academies in Europe and in the United States. In the wars of Louis XIV, the siege was the dominant form of warfare.⁶⁷ In Europe, fortified cities were designed to hold up an enemy force for a period of time. During the American Civil War, both Union and Confederate forces believed fortresses would make ports virtually impregnable. Early in the Civil War, this idea was shown to be false. Union forces were able to quickly overtake Confederate forts that guarded ports such as New Orleans LA, Savannah GA, and Beaufort NC. This was done by the use of siege parallels and saps that had been in use since Vauban's time.

Overcoming enemy fortifications was also included in Vauban's textbook. His siege methods had been in use by American military engineers even before the Revolution. During the Civil War these same siege methods helped to capture Confederate forts that guarded important harbors and helped to enforce the Union blockade. The siege parallel had been in rudimentary use since the mid-16th century, but Vauban used his engineering skills to bring the idea to prominence during a siege in 1673.⁶⁸ During sieges, parallel trenches were dug in closer and closer in concentric arcs in front of the walls of an enemy fortress. Communication trenches or saps were dug to connect the parallels. The earth from the excavations was used to create embankments that screened the attackers from defensive fire. As each parallel was dug closer to the enemy fort, artillery was moved into these trenches. The artillery targeted the walls at close range to bombard a section of the wall. Once a breach had been made by destroying a section of a wall, the fort was stormed. This model of attack was used in many offensive operations, from

⁶⁷ Armstrong Starkey, *War in the Age of Enlightenment: 1700-1789* (New York: Praeger, 2003), 55.

⁶⁸ Christopher Duffy, *Siege Warfare: The Fortress in the Early Modern World 1494-1660* (London: Routledge and Kegan Paul, 1995), 10.

the siege of Yorktown in the American Revolution to the 20th century sieges of Dien Bien Phu in 1954 and Khe Sahn in 1968.⁶⁹

Eighteenth and nineteenth century American military engineers were heavily influenced by Vauban's ideas.⁷⁰ Ft. McHenry and other coastal forts were constructed according to his star shaped bastion design. During the War of 1812, Ft. McHenry had famously withstood a heavy bombardment from a British fleet. During the Mexican War, the American army's siege of the fortress of Veracruz was conducted in the Vauban manner. Parallels and saps were dug in an enclosing ring only 700 yards from the city walls.⁷¹ The American forces used 24 pounder Coehorn mortars and howitzers during the siege.⁷² The Coehorn mortar had been invented in the late 17th century and were a part of most nations' artillery arsenals. After continuous bombardment, the city of Veracruz with its fortress of San Juan de Ulua surrendered 15 days after General Scott's army had besieged them.⁷³

By the time of the American Civil war, permanent coastal fortifications had undergone a change in design. The forts were now built in a pentagonal shape and the walls displayed tiered casements to give the defenders heavier cannon fire against an attacking fleet. Examples of this new fort architecture were Ft. Sumter in Charleston harbor, Ft. Pulaski near Savannah, Ft. Jackson along the approaches to New Orleans, and Ft. Point in San Francisco. These forts were

⁶⁹ Bernard B. Fall, *Hell in a Very Small Place: The Siege of Dien Bien Phu* (New York: Da Capo Press, 2002), 88.

⁷⁰ Ledlie J. Klosky and Wynn E. Klosky, "Men of Action: French Influence and the Founding of American Civil and Military Engineering," *Construction History* 28, no. 3 (2013), 69.

⁷¹ Robert Anderson, *An Artillery Officer in the Mexican War: Letters of Robert Anderson, Captain 3rd Artillery, U.S.A.* (Freeport, NY: Books for Libraries Press, 1971), 78, 84.

⁷² Anderson, 91.

⁷³ *Ibid.*, 101.

designed to protect the nearby ports they guarded. It was believed they would hold out against a seaborne attacker like Ft. McHenry did in the War of 1812.

Besides the change in fort design, the years before the Civil War saw a revolution in gun technology. The rifled cannon was a new weapon that seemed to make permanent seacoast fortifications obsolete. The rifling of the barrels made possible the in-flight stabilization of pointed projectiles. The pointed projectile comprised a far greater mass than a sphere of identical diameter.⁷⁴ Tests in England in 1860 had shown that even one hit by a shell from a rifled cannon at 60 to 100 yards could do significant damage to a brick masonry wall.⁷⁵ Some experts came to the conclusion that the rifled cannon could quickly and easily accomplish what smoothbore cannon could only achieve through long, tedious bombardment. A modern expert on fortifications concluded, "It appeared that seacoast forts could not withstand attack without major remodeling."⁷⁶

The recent Crimean War was highlighted by Royal Navy's fleet bombardments of Russian fortresses on the Baltic coastline as well as a 10-month siege of the Russian fortress of Sevastopol by the modern British and French land forces. An American military commission had been able to observe Western European and Russian fortification methods and wrote a report to Congress about their findings.⁷⁷ George B. McClellan was one of the members of this American

⁷⁴ Emanuel R. Lewis, *Seacoast Fortifications of the United States: An Introductory History* (Annapolis, MD: Naval Institute Press, 1979), 67.

⁷⁵ Brigadier General Q.A. Gillmore, *Official Report to the United States Engineer Department of the Siege and Reduction of Fort Pulaski, Georgia, February, March, and April, 1862* (New York: D. Van Nostrand, 1862), 45.

⁷⁶ Willard B. Robinson, *American Forts: Architectural Form and Function* (Urbana: University of Illinois Press, 1977), 128.

⁷⁷ Col. Richard Delafield, *Report on the Art of War in Europe in 1854, 1855 and 1856* (Washington: George W. Bowman, 1860), 239-244.

military commission. In 1855, the fortress of Sevastopol was also taken using siege tactics that had been developed by Sebastien Vauban.⁷⁸ The British and French forces dug parallels around Sevastopol. Heavy artillery was then placed in positions in the parallels.⁷⁹

After a period of bombardment, sap trenches were dug out of the parallels in the direction of the walls of the fortress. Branching off these saps, new parallel trenches were dug closer to the walls. The heavy artillery was then moved into new emplacements in the new parallels. The closer ranges of the heavy artillery caused more damage to be done to the fortifications surrounding Sevastopol. These parallels were connected by the sap trenches and resembled concentric rings that were constructed closer and closer to the walls of the fortress.

As the parallels got closer, artillery caused more damage to fortifications and a breach would occur as part of the defensive wall eventually crumbled. The besieging force would make an infantry attack through this breach to try and capture the fortress. This tactic was used at Sevastopol in 1855. The British and French artillery caused two breaches in the wall. Each of the forces then made an infantry attack. The British infantry assault failed, while the French assault succeeded in taking an important position in the defensive works around the city.⁸⁰ This successful attack through a breach caused most of the Russian forces to evacuate Sevastopol. Similar siege techniques were also used in combined operations to overcome Confederate seacoast fortifications during the Union blockade of the southern coastline.

⁷⁸ Elphinstone, H.C., *Siege of Sevastopol 1854–55: Journal of the Operations Conducted by the Corps of Royal Engineers*. (London: Naval and Military Press, 2003), 6-7.

⁷⁹ Elphinstone, 132, 159.

⁸⁰ Troubetzkoy, Alexis S., *The Crimean War: The Causes and Consequences of a Medieval Conflict Fought in a Modern Age*. (London: Constable & Robinson, 2006), 288.

During the United States Civil War, the Blockade Strategy Board delivered seven different reports to the Navy Department between July 5 and September 19, 1861. The reports took into consideration the experiences of the United States Navy during the Mexican War and the recent Royal Navy experiences during the Crimean conflict. The Blockade Strategy Board also recommended dividing the naval forces into different blockading squadrons to enforce the blockade against different areas of the Southern coastline.

The first reports recommended seizing areas along the coastline to use as ports and anchorages to repair and resupply the blockading ships and to give sailors a place to rest. The first recommendation of the board was to seize Fernandina, Florida and its harbor to use as a southern anchor for the Atlantic blockading ships.⁸¹ The second recommendation report considered the South Carolina coast, particularly Bull's Bay, St. Helena Sound, and Port Royal Sound. The board recommended the seizure and occupation of at least one of these for an anchorage and resupply station for a blockading squadron.⁸²

Ports and bases were established along the coastline when enough forces could be spared for operations. One of the first operations of the Union blockaders was the siege and reduction of Fort Pulaski, Georgia from February 22 to April 11, 1862. Fort Pulaski stands on Cockspur Island along the Savannah River. It guarded the approach to the port of Savannah, Georgia. It was a modern fort built in the pentagonal-shaped style with tiered casements for 48 cannons and a garrison of 358 troops.⁸³

⁸¹ U.S. War Department, *Official Records of the Union and Confederate Navies in the War of the Rebellion*. (Cited as *ORN*) (Washington: D.C.: Government Printing Office, 1894-1922), Vol. XII. Part 1, 195-198.

⁸² U.S. War Department, *The War of the Rebellion: Official Records of the Union and Confederate Armies*, (Cited as *OR*) 128 vols. (Washington, D.C.: Government Printing Office, 1881-1901), Vol. VI, Part 1, 148-149.

⁸³ *OR*, VI, I, 148-149.

The U.S. Navy did not bombard the Fort Pulaski. Instead, army troops conducted a siege from nearby marshland. Starting on February 21, Union troops dug batteries on swampy ground on nearby Tybee Island. The work was done in silence at night and camouflaged during the day. After 47 days, by April 9, 1862, two companies of engineers and two infantry regiments had constructed 11 artillery batteries that were only 1,740 to 3,400 yards from the fort. The work was done under the difficult conditions of the marshlands.

I can pay no greater tribute to the patriotism of the 7th Connecticut Volunteers, the troops generally furnished me for this duty, than to say, that when the sling-carts frequently sank to their hubs in the marshes, and had to be extricated by unloading the mortar, rolling it upon planks, until harder ground could be found, then reloading it, they toiled night after night, often in a drenching rain, under the guns of the fort, speaking only in whispers, and directed entirely by the sound of a whistle, without uttering a murmur.⁸⁴

The Federals had a total of 36 artillery pieces including 10 heavy rifled artillery pieces⁸⁵ The commanders noted that the ranges of the batteries of rifled cannons were much greater than the 700 yards that was accepted as the maximum breaching distance for smoothbore cannon.⁸⁶

After the batteries were emplaced, it took only two days of bombardment before part of the outer wall collapsed, causing a major breach. The commander of Ft. Pulaski decided to surrender when faced with an assault of 10,000 Union troops against his fort's small garrison.⁸⁷

Further recommendations by the Blockade Board dealt with the Gulf Coast. In their August 9, 1861 report, the Board recommended operations against New Orleans. Louisiana and

⁸⁴ Gillmore, 63.

⁸⁵ *OR*, VI, I, 152.

⁸⁶ *OR*, VI, I, 155.

⁸⁷ *OR*, VI, I, 164.

Mobile, Alabama. Ship Island was to be captured and used as a staging ground for operations against either or both ports.⁸⁸

The West Gulf blockading squadron in the Gulf of Mexico was tasked with occupying the South's largest city and busiest seaport, New Orleans. The city was guarded by two forts along the Mississippi River. These were forts St. Philip and Jackson. Fort St. Philip was an irregularly shaped fort that had been built in Spanish colonial times. Fort Jackson was a pentagonal star shaped fort that was constructed between 1822 and 1832.

During the War of 1812, Fort St. Philip had been bombarded by the British fleet using Bomb Ketches, a specialized ship with one or two mortars emplaced on its deck. The British fleet bombarded the fort from January 9 to January 18, 1815. The bombardment was mostly ineffective because many of the exploding shells landed in the earth, causing no damage.⁸⁹ The fleet gave up the siege and sailed away after expending over 1,000 shells to cause only two dead and three wounded among the defenders.⁹⁰

During the Civil War, the Union planned an attack to capture New Orleans. In the 45 years since the British attack, there had come to be two forts on this same stretch of the Mississippi River. Besides Fort St. Philip, there was now Ft. Jackson to guard the river approach to New Orleans.

Admirals Farragut and Porter worked together closely and devised a strategy to let the Union navy's larger ocean-going ships pass by both forts.⁹¹ The reduction of the forts would be

⁸⁸ *ORN*, Vol. XVI, I, 618-630.

⁸⁹ Arsene L Latour, *Historical Memoir of the War in West Florida and Louisiana in 1814-15, With an Atlas* (Gainesville, FL: University of Florida Press), 310-320.

⁹⁰ Latour, 322.

left to Admiral Porter with siege mortars on 21 specially built schooners. Forts Jackson and St. Philip were supposed to be mutually supporting, but they were located too far from each other to actually do this. Admiral Porter concentrated the mortar fire from his heavy mortars on Ft. Jackson for 12 days from April 18-29, 1862. Porter later wrote,

It had been a heavy fight for the mortar vessels and for the poor fellows in the forts, who had borne for the last six days and nights the heavy pelting on their casemates of nearly seventeen thousand thirteen-inch shells, to say nothing of the fire of the gun-boats detailed daily to cover the mortar vessels from the fire of the forts.⁹²

These forts did not surrender from 12 days of heavy Union bombardment but rather in response to Farragut's running past them with his fleet, thus cutting off their supply line from upriver. Porter wrote, "The result was, the soldiers in the forts mutinied and insisted on a surrender, so that, however unwilling, the officers were forced to comply."⁹³ The forts took a hammering of thousands of mortar rounds, but this bombardment did not create a breach in the walls; they remained basically intact.⁹⁴ The problem was the morale of the garrison was so low that a mutiny occurred. There were leadership and discipline problems between the Confederate officers and the men they commanded.⁹⁵ The mutiny of the garrison forced the surrender of both the forts. Demoralized by the surrender of Ft. Jackson, Ft. St. Philip surrendered the same day. It took 13 days for both forts to surrender.

⁹¹ David D. Porter, *Incidents and Anecdotes of the Civil War*. (New York: D. Appleton and Company, 1885. Facsimile Reprint Harrisburg, PA: The Archive Society. 1997), 47.

⁹² Porter, 48.

⁹³ Porter, 49.

⁹⁴ Porter, 48.

⁹⁵ Michael D Pierson, "Fort Jackson and the Defence of New Orleans," *Mutiny at Fort Jackson: The Untold Story of the Fall of New Orleans* (Raleigh: University of North Carolina Press, 2008), 8-9.

The Blockade Strategy Board recommended areas of the Southern coastline to occupy in order to set up bases where the Union navy could resupply and repair its ships. Weary crews could also rest after spending time at sea. The area around the Outer Banks at Port Royal Sound was recommended for just such a base because of the deep water port at Beaufort, North Carolina. Unfortunately, there was a Confederate-occupied fort that protected Beaufort. Its name was Fort Macon.

Fort Macon had been constructed from 1826-1834 and named in honor of Senator Macon. It was considered a Third System fort. This meant it was designed in a slightly irregular pentagonal shape, like Fort Point in San Francisco and Fort Sumter in Charleston. The fort featured defensive cannons located in casements in the walls like these other forts. Fort Macon differed from the other Third System forts by having a large outer defensive perimeter known as a covertway that did not allow the masonry of the inner citadel to be exposed to cannon fire. There were defensive cannons emplaced in barbettes along the covertway. With no exposed masonry for rifled cannon to destroy, taking this fort would be a challenge for the attacking Federal army.

This fort was besieged by infantry consisting of the 8th Connecticut Regiment, and the 4th Rhode Island Regiment. The 5th Rhode Island Heavy Artillery provided the mortars and rifled cannons. General Ambrose Burnside was in overall command of the force. The infantry regiments helped the artillerymen move the heavy pieces of ordnance and dug the parallels. Work began on the siege parallels on April 11, 1862. A commander of the infantry wrote,

...A wide marsh was to be crossed in which the wheels of the artillery carriages sank to the hub, and when this obstacle was crossed, a continuous line on sandy knolls was reached extending to the fort. These sand hills were covered by a stunted growth...in which the wheels sank to the axle, requiring a great force to move the massive guns.⁹⁶

"The first battery was built under cover of the sand hills, and about fourteen hundred yards from the fort....Trenches and rifle pits connected one with the other, and also formed a defense and shelter to our men."⁹⁷

Once in place, the mortars were able to bombard the fort. Even though the covertway protected the walls of the fort, the Confederate artillery was positioned on the uppermost tier of the fort's casements. This would be knocked out by an effective artillery barrage. The commander of the Union artillery observed,

Soon after the firing commenced [General Foster] trained his Parrot guns to have solid shot just graze the crest of the counterscarp and strike the scarp wall just back of the magazine.... Before sundown seventeen of their guns had been dismantled or otherwise disabled. Great breaches had been made in the scarp walls. A crack twelve feet long showed on the inside wall of the magazine, and a shell might pierce it at any moment and explode the five tons of powder in it, while the [outer] ramparts had been swept clean of men.⁹⁸

With this very accurate bombardment that only lasted one day, the casualties were light. The Union had one man killed and five wounded. The Confederates lost eight men and 20 were wounded.⁹⁹ The fort's garrison surrendered on April 23, 1862 with the Honors of War. They only held off the attacking Federal troops for 12 days.

The establishment of a base at Port Royal Sound was a great accomplishment for the Union navy. Its vessels now had a secure anchorage in which they could resupply with coal and

⁹⁶ George H. Allen, *Forty-Sixth Months with the Fourth R.I. Volunteers in the War of 1861 to 1865 Comprising a History of Its Marches, Battles, and Camp Life* (Providence: J.A. and R.A. Reid, Printers, 1887), 111.

⁹⁷ Allen, 114.

⁹⁸ Burlingame, John K., *History of the Fifth Regiment of Rhode Island Heavy Artillery During Three and a Half Years of Service in North Carolina* (Providence, R.I. Snow and Farnham, 1892), 64.

⁹⁹ *Ibid.*, 67.

overhaul engines. The crews could also get a break from sea duty. Commander John B. Marchand, a captain of one of the ships under Flag Officer Du Pont's command wrote in his diary. "Ship's company [was] employed coaling, and engineers [worked] about the boilers. The latter [were] found in much worse condition than expected."¹⁰⁰

Union blockaders used the strategy of physically occupying Southern ports throughout the war. Taking Confederate coastal fortifications was a major factor to enforce the blockade of its ports. Even later in the war in 1864 and 1865, coastal fortifications were still being taken in order to occupy Southern ports. During the campaign to occupy Mobile, Alabama in 1864, Forts Gaines and Morgan were besieged and surrendered to Union land forces. Ft. Gaines surrendered after only 5 days of being besieged because it was untenable after Union forces established batteries on a dune that overlooked the fort. Fort Morgan was better prepared, but fell after a 15 day siege.¹⁰¹ Even in 1865 the last major Confederate port, Wilmington, North Carolina was finally taken. Fort Fisher, which guarded the port, was stormed by troops led by General Alfred Terry from January 13-15, 1865. General Terry closely cooperated with Admiral Porter's fleet to coordinate his infantry attacks with a bombardment from Porter's fleet of 60 ironclads and gunboats.

The capture of Confederate seacoast fortifications that were important to keep the approaches to their ports open, showed some problems with Confederate defense of their ports. The Confederates could not match the manpower of the Northern forces. Instead they depended on a few hundred men in isolated forts to protect important ports such as New Orleans, Louisiana

¹⁰⁰ Symonds, 155.

¹⁰¹ Jack D. Coombe, *Gunfire Around the Gulf: The Last Major Naval Campaigns of the Civil War* (New York: Bantam Books, 1999), 127.

and Savannah, Georgia. The forts were obsolete, but may have held out longer if there had been a field army to repel the Union forces from making siege parallels, such as at Ft. Macon and Ft. Pulaski. Perhaps Fort Jackson could have been built in a better location along the Mississippi River for the guns of Ft. St. Philip to support it. Improvements such as heavier masonry in the walls could have helped the defense of these forts.

British experts with combat experience in the Crimean War advised American engineers to strengthen the walls of their seacoast fortifications. One British admiral remarked, "...the remedies proposed to strengthen the casemate embrasures is the strongest proof of the original error of having constructed works of this description, so as to render it absolutely imperative upon the engineers of the United States to endeavor to remedy defects inherent in masonry defences, or replace them by earthen works."¹⁰²

The human factor was a major element in the fall of a fort. Fort St. Philip and Ft. Jackson should have held out longer. The enlisted men of the garrison inside Fort Jackson mutinied, then forced their officers to surrender. Fort St. Philip had similar morale problems. It surrendered on the same day as Fort Jackson without the walls even being breached.¹⁰³ A determined garrison gave a fort its best factor for resistance. Vauban wrote, "You should always assume two things: one, that the garrison will do its duty; and two, that the enemy will attack in the strongest place."¹⁰⁴

¹⁰² John G. Barnard, *Notes on Sea-coast Defence: Sea-coast Fortification, the Fifteen-Inch Gun and Casement Embrasures* (New York: D. Van Nostrand, 1861), 94.

¹⁰³ Porter, 49.

¹⁰⁴ Sebastien L de Vauban, *A Manual of Siegecraft and Fortification* (Ann Arbor: University of Michigan Press 1968), 140.

Although rifled artillery did not make masonry forts obsolete overnight, they did give the besieger a powerful tool to reduce them. Many fortifications with exposed masonry walls were built in isolated positions. These would now be vulnerable to the rifled cannon used by the Union army and navy.

Before the Civil War there was little indication that ships alone could damage fortifications enough to force their surrender. British fleet bombardments of Russian forts in the Baltic Sea during the Crimean War were not particularly effective.¹⁰⁵ Individual projectiles fired from cannon aboard ships might make a penetration into a masonry wall, but the gun crews could not hit the same spot repeatedly to cause a breach. Admiral David Porter's use of mortar boats in 1862 was the first time they had been used on an American vessel and they proved devastating to Confederate coastal fortifications and the morale of the garrison stationed inside.

The strategy the Union navy used to blockade Southern ports was slow and deliberate. Blockades are not a strategy to quickly win a conflict. Blockades are a part of a strategy that in modern terms is called “playing a long game.” A blockade of an enemy coastline takes time and patience, but its effects are part of the overall strategy to win the conflict. The blockade and siege of Sevastopol during the Crimean War lasted 10 months. The fall of Sevastopol was a major factor in ending the war.¹⁰⁶ Before the Civil War, blockades in conflicts within living memory showed that both blockades and sieges take time. During the Napoleonic Wars, British naval forces blockaded French ports for years. The American fleet blockaded Mexican ports in the Gulf of Mexico and on the Pacific Ocean from 1846 until 1848. Little difference was to be

¹⁰⁵ Henry Tyrrell, *The History of the War With Russia: Giving the Full Details of the Operations of the Allied Armies* (London: The London Printing and Publishing Company, 1858), Volume 3, 334. accessed May 5, 2020, <https://archive.org/details/historyofwarwith03tyrruoft/page/n7/mode/2up>.

¹⁰⁶ Clive Ponting, *The Crimean War: The Truth Behind the Myth* (New York: Random House, 2011), 312.

expected from a blockade by Union naval forces during the Civil War. Taking Confederate coastal fortifications was a major factor to enforce the blockade of its ports and ensure ships could not deliver supplies to the Confederacy.

Chapter 4: Confederate Countermeasures to the Union Blockade

To counter the Union blockade, the Confederates used a combination of strategies, including several that smaller navies have traditionally used to counter a stronger naval power. They also used counter-blockades and some cutting-edge technologies to break the Union blockade. The Union navy was hard pressed to keep up with Confederate counterstrategies to their blockade.

One of the strategies that was enacted was a form of economic coercion to try to force foreign powers to intervene in the Civil War and break the Union blockade. This strategy involved a cotton embargo from the states that formed the Confederacy to England and France. This was generally known as “cotton diplomacy.” The idea was to withhold raw cotton from the textile supply chain. An embargo of raw cotton would affect buyers, shippers, industrialists, and workers in these nations. The shippers and the entire textile industry would find they could not operate without cotton from the South.

As the logic went, the supply of raw cotton from the “cotton states” was so important that the shippers and mill operators of the textile industry would not be able to operate without the steady supply of cotton. Without raw cotton, the entire textile industry would then be forced to shut down. Many thousands of people would be out of work. This would cause major economic problems in England and France. The shippers, business owners, and the masses of unemployed would pressure their government to intervene in the American Civil War in order to resume the cotton shipments from the South.

Following the logic of this argument, the minimum outcome of the cotton embargo would be that the Confederacy would be internationally recognized and the blockade would be eventually broken by the demand for its cotton with international trade. An intermediate outcome

would be recognition and limited European intervention such as a mediation conference. The blockade would be broken if European mediation was accepted. A maximum outcome would be direct European military intervention in the American Civil War and the Union blockade would presumably be broken with the help of the powerful British and French navies. In all of these scenarios, the supply chain of Southern cotton would eventually flow unimpeded to the British and French textile mills.

There were some true facts to support this argument, but was mostly wishful thinking to expect European intervention to break the blockade of the South. Cotton grown in the Southern states was very important to Britain's economy. By 1860, textile manufacturing had become a major industry in cities in the Midlands of England, especially in Lancashire. It was a common belief among cotton planters that about a quarter of England's working population relied on the cotton industry for employment.¹⁰⁷ Jefferson Davis became a firm believer in the power of cotton to bring European intervention in the Civil War and break any blockade of the Confederate States of America.¹⁰⁸

The idea that the power of cotton would force England to intervene in the Civil War was widespread in the South. A British traveler and correspondent for the *London Times*, William Howard Russell, travelled extensively through Virginia, North Carolina, South Carolina and other Southern states in 1861-1862. He found virtually unanimous opinion among the population as to the power of cotton to force England to intervene on the side of the South.¹⁰⁹

¹⁰⁷ Frank L. Owsley, "The Confederacy and King Cotton: A Study in Economic Coercion." *The North Carolina Historical Review* 6, No. 4 (October, 1929), 371.

¹⁰⁸ Frank L. Owsley, *King Cotton Diplomacy: Foreign Relations of the Confederate States of America* (Chicago: The University of Chicago Press, 1959), 19.

The idea of forcing European intervention through an embargo of cotton did not come from the Confederate Congress. Confederate lawmakers were sympathetic to the idea of an embargo but could not pass legislation for it. Bills for a complete embargo of Southern cotton in the Confederate Congress always died in committee or before a final vote.¹¹⁰ Jefferson Davis may have had a hand in seeing that embargo bills died in committee, as he was reluctant to back a full embargo of cotton to Europe. Davis and Judah P. Benjamin, the Confederate Attorney General, who became the Secretary of State in 1862, agreed that just the threat of an embargo would be enough to force European intervention.¹¹¹

With advocacy from Southern newspapers, the embargo of cotton to Europe was instituted by the cotton planters themselves. The planters virtually unanimously agreed that no cotton would leave their plantations until the Union blockade was lifted and Southern independence recognized.¹¹² Cotton planters and cotton exporters circulated letters to encourage each other not to ship cotton from their plantations to New Orleans or other Southern ports. Cotton buyers and exporters urged planters to aid the Confederate government by putting pressure on the governments in England and France for diplomatic intervention with a cotton embargo.

The logic of the unofficial cotton embargo may have made sense to cotton planters, but it did not have the desired effects on British society or the British government. Industrialists who operated textile mills in England were inconvenienced by the unofficial embargo, but other

¹⁰⁹ William H. Russell, *My Diary North and South* (Baton Rouge: Louisiana State University Press, 2001), 96-97.

¹¹⁰ Owsley, *King Cotton Diplomacy*. 30.

¹¹¹ *Official Records of the Union and Confederate Navies in the War of the Rebellion* (Washington: Government Printing Office, 1894-1922), Series 2, III, 381-384.

¹¹² Owsley, *King Cotton Diplomacy*, 27-29.

materials, such as flax, linen, and wool were also used to produce textiles. John Watts, a mid-19th century British researcher and critic of government intervention in the economy concluded, “The absence of cotton increased the demand for woolen and worsted goods.”¹¹³ Southern planters would be very disappointed as there was not even a single attempt during the war by the mill owners of Lancashire or their advocates to change British government policy from neutrality to one of direct intervention.¹¹⁴

The self-imposed cotton blockade led to two unintended outcomes. Early in the war, it gave the appearance that the Union naval blockade was more efficient than it really was. Also, rather than intervening in the American Civil War and breaking the blockade, the British government raised funds for “relief” of unemployed workers in Lancashire. This included the industrial city of Manchester and in smaller cities due to the lack of Southern cotton for textile operations. John Watts also concluded that, “The scale of relief at Stalybridge had been unusually high, and some of the recipients were quite as well off under the relief committee as when engaged at their ordinary employments”¹¹⁵ Besides “relief” payments, the 1864 Public Relief Act also put unemployed workers back to work to build public parks and infrastructures.

When Britain’s Parliament debated changing governmental policy toward the Union blockade, the price of cotton in Britain was considered proof of the effectiveness of the Union blockade.

“The effectiveness of the blockade of main ports for ocean-going vessels carrying bulky cargoes was proved... by the price of raw cotton in England, where it was 100 percent greater than in the South, and of salt in Charleston where the importer could make a profit of 1000 percent. To raise the blockade... would be a direct

¹¹³ John Watts. *The Facts of the Cotton Famine* (London: Simpkin, Marshall, and Company, 1866), 393.

¹¹⁴ Ephraim D. Adams. *Great Britain and the American Civil War*. Two volumes (New York: Russell and Russell, 1924) Vol II, 13.

¹¹⁵ Watts, 263.

violation by Britain of her neutrality.”¹¹⁶

Union victories also discouraged direct British intervention in the Civil War and dashed the hopes of Southerners including their Commissioner in England, James Mason. On possible British intervention to break the Union blockade, he wrote, “... no step will be taken by this government to interfere with it.... The late reverses at Fort Henry and Fort Donelson have had an unfortunate effect on the minds of our friends here...”¹¹⁷

France would follow the lead of England. The Confederate Commissioner to France, James Slidell, became convinced there was no hope for independent French intervention to help the Confederacy. He glumly wrote,

“I then supposed that the influence of the Emperor [Napoleon III] was such that any view of the question that he might urge on the British cabinet would be adopted. I have since had reason to change entirely this opinion. I am now satisfied that in all that concerns us the initiative must be taken by England; that the Emperor sets such value on her good will that we will make any sacrifice of his own opinions and policy to retain it”¹¹⁸

Despite the diplomatic reverses in England and France, the Confederates had a technological surprise as they began the construction of an innovative warship at the Gosport Navy Yard in Portsmouth, Virginia. This innovative design was to become the first “ironclad” or iron-plated warship that was propelled only by steam power. European ironclads such as the French *Gloire* and the Royal Navy’s *H.M.S. Warrior* utilized both sails and steam engines. The Confederate Secretary of the Navy, Stephen Mallory, wanted to use the most advanced technology possible to gain an advantage over Union warships. He wrote, “I propose to adopt a

¹¹⁶ Adams, Vol 1, 270.

¹¹⁷ As quoted in Adams, Vol 1, 272-273.

¹¹⁸ As quoted in Adams, Vol 1, 273.

class of vessels hitherto unknown to naval service. The perfection of a warship would doubtless be a combination of the greatest known ocean speed with the greatest known floating battery and power of resistance.”¹¹⁹

Stephen Mallory was not the only naval man in the Confederacy to advocate for the use of ironclad warships. On February 27, 1861 Congressmen William Chilton of Alabama introduced a resolution in the Confederate Congress that was adopted. His resolution stated, “That the committee on Naval Affairs be instructed to inquire into the propriety of constructing by this Government of two iron-plated frigates and such iron-plated gunboats as may be necessary to protect the commerce and provide the safety of this Confederacy.”¹²⁰

Lieutenant John M. Brooke wrote,

The Secretary [Mallory] and myself had conversed upon the subject of protecting ships with ironclading very frequently, and at last I proposed to him a plan. That was about early in June, 1861, just after the Secretary came here from Montgomery. He approved of the plan and I asked him to send to Norfolk for some practical shipbuilder, to draw out a plan in detail.¹²¹

As Mallory later wrote to the Chairman of the House Committee on Naval Affairs,

I regard the possession of an iron-armored ship as a matter of the first necessity.... If we...follow their [the U.S. Navy’s] example and build wooden ships, we shall Have to construct several at one time; for one or two ships would fall easy prey to comparatively numerous steam frigates. But inequality of numbers may be compensated by invulnerability; and thus not only does economy but naval success dictate the wisdom of expediency of fighting with iron against wood, without regard to first cost.¹²²

¹¹⁹ *ORN*. Series II, II, 51.

¹²⁰ *Journal of the Congress of the Confederate States of America, 1861-1865*. 7 Vols., I, 90.

¹²¹ *ORN*. Series II, I, 783.

¹²² *ORN*. Series II, II, 67-69.

Mallory's idea at the time was to purchase iron-plated ships in Europe, not to build them. Two emissaries, James Bulloch and James North, were sent to Europe in May 1861 to buy ironclads. Ironclad warships were the newest naval design technology to come out of Europe. They would probably have been adopted by the U.S. Navy at some point in the 1860's, but the nascent Confederate Navy embraced ironclad technology before the U.S. Navy.

The European ironclads were basically a wooden sailing vessel with iron plates on their sides for protection. The first ocean-going ironclad was the French *Gloire* that was launched in 1859 and completed in 1860. The *Gloire* had armored plating on its sides and carried its cannon on gundecks to be able to fire a traditional broadside. The Royal Navy quickly countered with ocean-going ironclad vessels of its own. In 1861 the *H.M.S. Warrior* and *H.M.S. Black Prince* were launched. These ships were larger than the *Gloire* but carried more cannons in broadside. All of these vessels utilized steam power, but also had traditional masts and sails.

In Virginia, there were two men who were instrumental in starting to build the first ironclad warship for the Confederacy. They were naval Lieutenant John M. Brooke and naval constructor, John L Porter. Brooke made drawings of the general design and deck plan of an ironclad warship. Porter made a model of an ironclad that featured an inclined casemate or "shield" on the hull. Both Brooke's and Porter's designs were similar in that the armored casemate was to rest on the ship's hull. The casemate would house the vessel's guns. Porter intended his ironclad to conduct harbor defense; Brooke designed his to go to sea with both the bow and stern of his ironclad design partially submerged in order to gain buoyancy and speed.

Converting the damaged steam frigate *U.S.S. Merrimack* to an ironclad came as Lieutenant Brooke and the Chief Engineer of the Confederate Navy, William P. Williamson, were looking for suitable steam engines for the proposed ironclad vessel. Since no engines could

be procured at the Tredegar Iron Works and the engines of the burned steam frigate, *U.S.S. Merrimack*, were available immediately, Williamson suggested fitting the armored casemate to the hulk of the *Merrimack*. Both Brooke and Porter believed the conversion of an already constructed hull would allow its conversion to an ironclad in a short amount of time.¹²³ In contrast to European ironclad designs, this ship was to be propelled only by steam engines and would not have sails.

The *C.S.S. Virginia* was the first ironclad constructed in the Civil War. It was used offensively in March, 1862 to clear the Union blockading squadron from Hampton Roads. Even though time was saved by converting the hulk of the *Merrimack*, word of its construction spread to the Union and the U.S. Navy began constructing its own ironclad warships.

When intelligence reports reached Gideon Welles, Lincoln's Secretary of the Navy, that the Confederates were constructing an ironclad warship, he realized that his own naval forces could not counter a ship of this class. Welles appointed an Ironclad Design Board to study designs on which to construct the first Union ironclads. Its chairman was an experienced naval officer, Flag Officer Samuel F. Du Pont. Out of 17 designs submitted, the board approved three. One design was based on the French ironclad, *Gloire*. It was launched as the *U.S.S. New Ironsides*. Another design approved by the Ironclad Board was the most radical of the ones adopted. It was an exclusively steam-propelled warship with an iron hull and deck with its cannons in a revolving turret. It was designed to only steam in coastal waters. Launched as the *U.S.S. Monitor*, it became the design that many of the Union's ironclads were based. Even though DuPont believed *New Ironsides* was the most valuable ship in his squadron, the *Monitor* came to be considered the most successful of the board's ironclad designs. The *Monitor* was also unique

¹²³ J. Thomas Scharf, *History of the Confederate States Navy* (New York: Random House, 1996), 146-147.

in that its designer, John Erickson was able to complete the vessel in only 100 days. After its completion, Admiral Hiram Paulding, a member of the Ironclad Board and the Commandant of the New York Navy Yard, ordered the ship to quickly proceed to Hampton Roads to counter the *C.S.S. Virginia*.

The Battle of Hampton Roads, the world's first clash between ironclad vessels occurred on March 9, 1862. Tactically, the battle favored the *U.S.S. Monitor* in that the wooden vessel *U.S.S. Minnesota* was saved and the *C.S.S. Virginia* withdrew. Strategically, the battle favored the *C.S.S. Virginia* in that the James River and Norfolk were protected. Lack of control of the James River influenced the battle plans of General McClellan for the Peninsular Campaign¹²⁴ McClellan later wrote:

“... important events were occurring which materially modified the designs for the subsequent campaign [against Richmond]. The appearance of the *Merrimac* off Old Point Comfort, and the encounter with the United States Squadron on the 8th of March, threatened serious derangement of the plan for the Peninsula movement.... although the James River was closed to us, the York River with its tributaries was still open as a line of water communication with the Fortress [Fort Monroe]. The general plan, therefore, remained undisturbed, although less promising in its details than when the James River was in our control.”¹²⁵

Even though the design of the *C.S.S. Virginia* inspired a patent for the immersion of the bow and stern below the waterline, Confederate designers remained locked its basic design. The concept was not a secret. It was an iron casement on the hull that contained the cannons and protected the engines. This was to be used as the basic design for many other Confederate ironclad warships for the remainder of the war. World navies were not impressed with the

¹²⁴ R.W. Daly, *How the Merrimac Won: The Strategic Story of the C.S.S. Virginia* (New York: Thomas Y. Crowell Company, 1957), 130.

¹²⁵ *OR*. Series 1, V, 50-51.

design.¹²⁶ It was not a new concept. The *C.S.S. Virginia* was basically an armored casement with broadside guns built atop a burnt-out sailing ship. In contrast, world navies inquired to the U.S. Navy and John Erickson, the designer of the *U.S.S. Monitor*, for plans and information about his new ship. Of Erickson's 40 patents for features on the *U.S.S. Monitor*, the gun turret was to cause a naval revolution.

Pressure on Stephen Mallory on what Confederate naval strategy should be begun with Union amphibious operations in the late summer and fall of 1861. After the capture of Hatteras Inlet in North Carolina in late August 1861 and the capture of Port Royal Sound in South Carolina in November 1861, Confederate state legislatures began to demand gunboats for river and harbor defense. The lack of drydocks and facilities that could construct the large ironclads ironclad envisioned by Mallory was not lost on experienced naval officers. Matthew F. Maury, a respected veteran officer who was now serving in the Confederate Navy, advocated to Mallory on October 22, 1862 that the south should construct a large number of small steam gunboats with, "neither cabin, nor steerage, nor any accommodation on board."¹²⁷

By late 1862, the Confederate strategy for using ironclads began to change. Instead of using large ironclads to try and break the Union blockade, most were now used to defend against Union naval incursions. Confederate ironclads still retained the threat of offensive use. Later, Alfred T. Mahan described this as a "fleet in being" in his 1890 work, *The Influence of Sea Power Upon History 1660-1783*. Defensive uses for Confederate ironclads came as they were outmatched by the sheer numbers of Union ironclads. Because of the limited ironclad building

¹²⁶ Carl D. Park. *Ironclad Down: USS Merrimack-CSS Virginia From Construction to Destruction* (Annapolis, MD: Naval Institute Press, 2007), 193.

¹²⁷ *ORN*. Series II, II, 98-104.

capabilities of the Confederacy, the ironclads it did build were used mainly in a harbor defense role as the chief Confederate designer, John Porter, envisioned.¹²⁸

If a blockade was the traditional strategy of strong naval powers, commerce raiding was the strategy of weaker ones. Because the French had pioneered this form of maritime warfare, it was often referred to its French name of *guerre de course* or war on commerce. The idea was to weaken the stronger power's economy. Weak naval powers would rely on small, fast vessels to prey upon the merchant ships of the stronger naval power. These small, fast ships would capture the merchant ships to earn prize money or simply destroy them.

Privateers from the United States had been very effective in prior wars, such as the War of 1812, in capturing British merchant ships. Before the War of 1812 began, American privateers were helped by British fiscal policies. In the interest of economy, the British government demobilized some of its smaller warships that had the best chance of catching the fast American privateers.¹²⁹ During the conflict, one estimate is that 7.5% of the British merchant fleet had been captured by American privateers.¹³⁰ The sheer number of ships captured by American privateers show that they were very effective. Alfred T. Mahon estimated from 1,500 – 1,600 British merchant vessels were captured by the American privateers.¹³¹

¹²⁸ Saxon T. Bisbee, *Engines of Rebellion: Confederate Ironclads and Steam Engineering in the Civil War* (Tuscaloosa, AL: The University of Alabama Press, 2018), 86.

¹²⁹ Donald R. Hickey, *The War of 1812: A Forgotten Conflict* (Urbana: University of Illinois Press, 1990) 218.

¹³⁰ Andrew Lambert, *The Challenge: Britain Against America in the Naval War of 1812* (London: Faber & Faber, 2012), 23.

¹³¹ Mahan, Captain A. T, *Sea Power in its Relations to the War of 1812*. (Two vols) (New York: Haskell House Publishers (reprint), 1969), 243.

In the 19th century, a small naval force, such as the Confederate Navy, could utilize two ways to conduct the *guerre de course* to attack and capture Union merchant ships. One way was to utilizing state-owned commissioned warships such as the *Alabama*. Another way was to rely on privately owned ships or privateers that held a special license that sanctioned them to attack enemy merchant ships. It was hoped that depredations to the Union merchant fleet would help break the blockade by drawing off enough Union ships so more blockade runners could get through the weakened blockading squadrons. Besides the battle of the ironclads at Hampton Roads, Confederate commerce raiding is one of the most written about subjects of the Confederate Navy.

In April 1861 privateering was still viewed as an antiquated, but powerful weapon of a smaller naval power against a greater naval power. It was viewed as an inexpensive and cost-effective means of bringing the war to the North. Privateers would cost the Confederate government virtually nothing. These privately owned and operated ships would be motivated by profit to capture Union ships and their cargoes, then sell them in a friendly port. Privateers were first used by the Confederacy to attempt to destroy enough commerce so Union ships warships would be pulled from the blockade and reassigned to try to hunt them down.

The basis for Confederate privateers began on April 17, 1861 when President Jefferson Davis issued a proclamation inviting applications for letters of marque and reprisal. “All who may desire, by service in private armed vessels on the high seas, to aid this government in resisting so wanton and wicked an aggression, to make application for commissions or letters of marque and reprisal to be issued under the seal of these Confederate States.”¹³²

¹³² *Journal of the Congress of the Confederate States of America, 1861-1865*. 7 vols. (Washington: Government Printing Office, 1904), 1, 159.

Since the United States was not a signatory to the 1856 Declaration of Paris, the Confederacy was not formally bound by its anti-privateering language.

Confederate privateers were hampered from the start as they found few ports that they could legally take their prize ships into and sell them for a profit. Most seafaring nations had signed the 1856 Declaration of Paris that outlawed privateering. The few ports where Confederate privateers could return and auction their captured ship or cargo were ones in the Confederate states that were being blockaded by the Union navy.

If privateers were captured, the law courts decided that privateers captured by Union ships were to be jailed, then face charges for piracy. If found guilty, the penalty for piracy was hanging. The Confederate government retaliated by jailing Union prisoners of war as stand-ins for captured Southern privateer crews. When word of the retaliation got to Washington D.C., the Lincoln administration stepped in and treated the captured privateer crews as prisoners of war. They were moved from jails to prisoner of war camps. Many of the captured Southern privateer crews eventually made their way to the South in prisoner exchanges.¹³³

The 1856 Declaration of Paris made privateering a relic of the past. Confederate privateers were few in number and could not legally sell their prizes in most ports of the world except Southern ports that were under blockade. Captains found that blockade-running was much more lucrative than privateering. The Confederates also had more success with the small number of government owned armed commerce raiders that attempted to capture Union merchant ships.

James Waddell, the captain of the raider, *C.S.S. Shenandoah*, definitely understood the value of commerce raiding. He wrote, “The capitalists of the North could only be reached

¹³³ William M. Robinson, Jr. *The Confederate Privateers* (Columbia, SC: University of South Carolina Press, 1994), 148-151.

through the destruction of Atlantic commerce; their attack would draw off cruisers from Southern ports, so that a reduced number on service could not watch so closely the Southern blockade runners which brought us war material and the necessities of life.”¹³⁴

James Bulloch was a foreign purchasing agent for the Confederate Navy in England. His goal was to procure commerce raiders to try and destroy the merchant vessels of the United States. It was also hoped that fast, well-armed ships such as the *C.S.S Alabama* would be able to disrupt the union blockade. Along with commerce raiding, a goal of the captain of the *Alabama* was to disrupt the Union blockade of Galveston. “Here he took the remainder of the coal and stores, and sent the barque to Liverpool, proceeding himself to look after General Banks’ expedition against Galveston. Semmes’ hope was to catch the troop-ships and transports *en route* and to make a dash in among them.”¹³⁵ John M. Kell, the Executive Officer of the *Alabama* described their orders were to, “Avoid all engagements with the enemy’s ships of war, but to destroy all their commerce that we could in the shortest space of time.”¹³⁶

The *Alabama* and other Confederate commerce raiders disrupted the merchant shipping of the United States. In June 1863 President Lincoln even ordered his Secretary of the Treasury, Salmon Chase, to lend his fast cutters of the Revenue Marine to be amalgamated into the squadrons of various fast naval vessels that were to pursue and overtake Confederate commerce raiders. Lincoln ordered Chase, “You will cooperate by the revenue cutters under your direction with the navy in arresting rebel depredations on American commerce and transportation and in

¹³⁴ James D. Horan, (Editor), *C.S.S. Shenandoah. The Memoirs of Lieutenant Commanding James I. Waddell* (New York: Crown Publishers, 1960), 81-82.

¹³⁵ James D. Bulloch, *The Secret Service of the Confederate States in Europe* (New York: The Modern Library, 2001), 186.

¹³⁶ John M. Kell, *Recollections of a Naval Life* (Washington: The Neale Company Publishers, 1900), 189.

capturing rebels engaged therein.”¹³⁷ Union naval officers were also well aware of the danger of Confederate commerce raiders, “There is no more interesting chapter in the history of the war that the account of the performances of those who commanded the cruisers that were sent forth by the Confederate Government to destroy the commerce of the Northern States.”¹³⁸

In all, a squadron of over a dozen fast ships, such as the *U.S.S. Kearsarge* and the *U.S.S. Niagara*, spend most of the war chasing Confederate commerce raiders. Eighteen Union warships were sent to find the *Alabama* alone. Admiral Du Pont worried that even this amount of ships would not be enough, “What vexes me is that so few people know or understand what a needle in a haystack business it is to chase a single ship on a wide ocean.”¹³⁹ The fast ships dispatched to search for the *Alabama* and other raiders would have been very useful to the blockade squadrons to intercept blockade runners into and out of Southern ports.

American consuls in England were not unaware of the aid that some British citizens and private companies were giving to the Confederates. Benjamin Moran, the American Consul in England wrote, “The Briton took them in and by so-doing assisted the pirate in her cruise against American commerce and they became in fact an aider and abettor in her villainy.”¹⁴⁰ A British observer detailed four effects of Confederate commerce raiders in a letter to Lord Russell:

- “1. The capture, destruction, or bonding of American merchantmen and other vessels.
2. The enormously increased rates of insurance upon American shipping and cargoes.
3. The sales of American vessels to foreign owners.

¹³⁷ *ORN*. Series I, II, 274-278.

¹³⁸ David D. Porter, *The Naval History of the Civil War* (New York: Sherman Publishing Company, 1886), 621.

¹³⁹ Du Pont, Vol. 2, 283.

¹⁴⁰ Benjamin Moran, *The Journal of Benjamin Moran, 1857-1865* (Chicago: The University of Chicago Press, 1949), 1143.

4. Transfer of American commerce to foreign bottoms.”

He estimated that from the start of the war to June 30, 1863, 148 United States vessels had been captured or destroyed by these marauders.¹⁴¹

The real effect of Confederate commerce raiders was one of nuisance. There were only eight raiders with only two afloat at any one time, but they managed to destroy a total of 284 United States merchant ships.¹⁴² Their effect was mainly to make insurance rates increase for American shippers. The high insurance rates forced American shipowners to transfer the registration of their ships to foreign nations in order to fly foreign flags and avoid the Confederate commerce raiders. This practice became known as “the flight from the flag”. This practice of American-owned ships being officially registered with foreign nations and flying their national flags to reduce insurance costs continued after the Civil War and still continues into the 21st century.¹⁴³

The Union’s blockade reduced exports of cotton from Southern states from 2.8 million bales in 1860 to 55,000 in 1862. In comparison, Confederate commerce raiders reduced Union shipping from 2.2 million tons in 1860 to less than 500,000 tons in 1865.¹⁴⁴ Considering the fact that the Confederacy invested much less to build its handful of raiders than the North did to maintain the blockade, the strategy of *guerre de course* was more than justified.

¹⁴¹ Frederick M. Edge, *The Destruction of the American Carrying Trade: A Letter to Earl Russell*. (London: William Ridgway, 1863) 12-13.

¹⁴² Craig L. Symonds, *The Civil War at Sea* (New York: Oxford University Press, 2012), 104.

¹⁴³ George W. Dalzell, *The Flight from the Flag: The Continuing Effect of the Civil War Upon the American Carrying Trade* (Chapel Hill, NC. University of North Carolina Press, 1940), 249-255.

¹⁴⁴ Symonds, 105.

Besides the successes of Confederate commerce raiders on Union merchant ships, the Confederate Navy also had success in temporarily driving away Union blockading ships from Southern ports. In two instances, the Confederates were able to actually force Union blockade ships to withdrawal, thereby lifting the blockade of these port cities. The first time was on January 1, 1863 when Confederate land and sea forces recaptured the port of Galveston, Texas and forced the Union blockading ships to withdrawal for a few days. The U.S. Navy reestablished the blockade of Galveston, but Union troops did not retake the seaport until the war ended.¹⁴⁵

The second time Confederate ships forced a blockading squadron from a Southern port was on January 30, 1863 at Charleston, South Carolina. In this instance two Confederate ironclad warships forced the Union blockading squadron to withdrawal, thus lifting the blockade. The Confederates implored the Consuls of England, France, and Spain to see for themselves that the port of Charleston was free from Union blockading ships, expecting the Lincoln administration to adhere to the 1856 Declaration of Paris and not reestablish the blockade for 15 days. The Union navy argued that the Union squadron had merely retreated and the blockade of Charleston was not broken. The Union navy reestablished the blockade by the end of the next day, January 31, 1863.¹⁴⁶

The blockading squadron was soon reinforced with the most powerful flotilla of ironclad warships up to that time. To prevent another sortie by the Confederate ironclads, the Union blockading squadron was augmented with eight *Monitor*-class ironclads and the large ironclad

¹⁴⁵ Charles C. Cumberland, "The Confederate Loss and Recapture of Galveston." *The Southwestern Historical Quarterly* 51, no. 2 (Oct. 1947) 109-130.

¹⁴⁶ Richard Selcer. "Blockade Busters of the Confederate Navy." *Naval History* 34, Issue 1, (June 2020) 20-26.

U.S.S. New Ironsides. This was considered the most powerful ironclad force in the Union navy to be able to counter the Confederate ironclads if they tried again to break the blockade of Charleston.

Besides the use of the first ironclad warship to drive away Union blockading ships, another Confederate innovation was steam-powered torpedo vessels. One group, based in Charleston, were the *C.S.S. David* class. In modern naval classification these were small semi-submersible torpedo boats. They carried a spar torpedo which would be attached to a Union warship, then exploded. Another group, based on the James River, was the *C.S.S. Squib* class. On October 5, 1863 the *David* attacked the largest warship in the Union blockading fleet off Charleston harbor, the *New Ironsides*.

“About a minute before the explosion a small object was see by the sentinels and hailed by them as a boat, Receiving no answer, he gave the order, “fire into her.” ... The object fired at proved to be (as I subsequently learned from one of the prisoners) a torpedo steamer, shaped like a cigar, 50 feet long by five feet in diameter, and of great speed, and so submerged that the only portion of her visible was the coamings of her hatch...”¹⁴⁷

The extent of the damage to the *U.S.S. New Ironsides* only became known after she was towed to the Federal base at Port Royal, South Carolina. Her severe damage was kept a secret so the Confederates would never know just how close they came to sinking the largest warship in the Union navy.¹⁴⁸ Each of these different groups of vessels only damaged one Union warship. There were few of them ever completed and none equaled the successful attack of the *C.S.S. David*.¹⁴⁹

¹⁴⁷ *ORN*, Series 1, XV, 12.

¹⁴⁸ R. Thomas Campbell, *Hunters of the Night: Confederate Torpedo Boats in the War Between the States* (Shippensburg: Burd Street Press) 65.

¹⁴⁹ William N. Still, *Confederate Shipbuilding* (Columbia: University of South Carolina Press), 19.

Another Confederate weapon was the mine, which was called a “torpedo” at the time of the Civil War. Mines had been used in the Crimean War to deny Russian harbors to the Allied naval forces. During the Civil War, the Confederates laid many mines to keep Union warships out of their harbors. The mines destroyed more Union ships than all other means combined. The use of mines by the Confederates also tended to block their harbors from all ocean-going and traffic that attempted to enter or leave the harbor.

The Confederates and Federals both used mines. “This brought about a rather interesting series of stalemates, for in the Upper James, the Roanoke, and other rivers there appeared two sets of torpedo barriers: one always the inner set up by the Confederates to keep the Federals out; the other planted by the Northerners for the opposite reason.”¹⁵⁰ The mines added to the blockade by the Union ships. The Confederacy’s mine warfare blocked many of its own harbors as effectively as Union warships.

In conclusion, the Confederate navy used cutting-edge ironclad ship technology and *guerre de course* tactics in its attempts to break the Union blockade. The Confederate navy just had too few ships to fight the larger numbers of Union ships. Even Confederate ironclad warships were overwhelmed by the sheer numbers of Union ironclads. Though Confederate commerce raiders used sails along with steam technology, they were insufficient to do decisive damage to the Northern merchant fleet. Confederate torpedo boats were not very effective at challenging the Union blockaders either. Confederate mines obstructed their own ports and mainly helped to cut off trade as effectively as the Northern blockaders. With the Confederate government lacking the means to effectively draw off the Union naval blockaders, the civilian

¹⁵⁰ Milton F. Perry, *Infernal Machines: The Story of Confederate Submarine and Mine Warfare* (Baton Rouge: Louisiana State University Press, 1965), 109.

population had to suffer the effects of the blockade with serious repercussions on the Confederate home front.

Chapter 5: The Confederate Home Front

The blockade had the most effect on the Confederate Home Front. It played a major role in creating the shortages in the Confederacy. One of the liabilities of the states that became the Confederacy were their reliance on outside sources of supply for many necessities of life. As one Southern lady reminisced, Southern states relied on imports “for everything from a hair-pin to a tooth-pick, and from a cradle to a coffin.”¹⁵¹ Another recalled, “Up to the beginning of the war we had been dependent on the North for almost everything eaten and worn.”¹⁵²

The task of sustaining the civilian population proved to be a major task for the Confederate government and the population that was not on the battlelines. The shortage of labor became a huge problem as many men from the farms joined the Confederate forces. Old men, women and children coped with shortages of food, clothing, and medicines. As many prime acres of farmland also became battlefields, the shortage of food was exacerbated. Years after the war, a Southerner reminisced about the blockade, “If I were asked the most active cause in the Confederate collapse, I should say: the blockade whipped us.”¹⁵³

There were some who saw the South was dependent on imports and that blockade would have a major effect on the South. They tried to jolt the population into action. The British traveler, William H. Russell warned, “The blockade would be severely felt.”¹⁵⁴ The south was a literate population and newspapers and periodicals were widely read. Following the secession of

¹⁵¹ Mrs. Felix G. de Fontaine, “Old Confederate Days” *Confederate Veteran* IV (1896), 302.

¹⁵² Parthenia A Hague, *A Blockaded Family: Life in Southern Alabama During the War* (Tuscaloosa: The University of Alabama Press), 15.

¹⁵³ Thomas DeLeon, *Belles, Beaux, and Brains of the 60's* (New York: G.W. Dillingham Company, 1909), 398.

¹⁵⁴ William H. Russell, *Pictures of Southern Life, Social, Political, Military* (New York: James D. Gregory, 1861), 71.

the southern states, journals and newspapers published articles reviewing the situation for their readers. One of the early editorial warnings was published in the January 1861 edition of *Southern Planter*. The article stressed the inadequate industrialization of the South and urges establishing more industry.¹⁵⁵ This was followed by a series of articles in the summer of 1861 in the popular and widely read *Southern Cultivator*, which listed some imported articles that were used every day, but were now no longer available due to the blockade. These items included: hay, meat, horses, butter, cheese, clothing, shoes, beverages, paper, candles, glass, kerosene, rope, oil, cordage, soap, and starch. The journal did not merely name these items, but offered suggestions to remedy the situation. The journal encouraged Southern people to innovate and lead; Southern people must not continue, “to imitate, but originate.”¹⁵⁶

Early in the war, Southerners were able to deal with the shortages as the war was expected to be short. The war was new in the summer of 1861 and no serious inconveniences faced the population of the Confederacy. Few Southerners, such as John B. Jones, dared to predict that troubles were ahead and households should save as much as possible for the coming years. As Jones saw the colorful uniforms of soldiers in the early months of the war he predicted, “But the gay uniforms we see to-day will change their hue before the advent of another year.”¹⁵⁷

Shortages could not be ignored as minor inconveniences. After the first summer, Southerners began to see that the blockade was affecting their daily lives. Some began to depend

¹⁵⁵ “Southern Patronage to Southern Imports and Domestic Industry,” *Southern Planter*, XXXI (1861), 58-63.

¹⁵⁶ C.W. Howard, “Things Worthy of Attention,” *Southern Cultivator* XIX (1861) 201-203, 233-235.

¹⁵⁷ John B. Jones, *A Rebel Clerk's Diary at the Confederate States Capital*. Two volumes. (Philadelphia: J.B. Lippincott and Company, 1866), I, 27.

on their own resources for the shortages that seemed to suddenly appear.¹⁵⁸ Frugality became the watchword even to families that had never had to experience what it meant. With each passing month, shortages became more acute.¹⁵⁹ There was no respite of shortages in the Confederacy during the war.

If frugality was a watchword, ingenuity and resourcefulness were passwords for many families. Southerners devised substitutes for everyday items that became more scarce with each passing month. One witness reminisced about the war years, “If that era of home life had to be characterized by one word, there could be no choice as to the term “substitute” ... There was hardly a tree or plant that did not in the long run furnish a substitute; being laid under tribute to feed or clothe the people, or to cure their ailments.”¹⁶⁰

At first the shortages of food, clothing, medicines and many other small things created only inconveniences. Soon these inconveniences developed into hardship and suffering. Nearly all Southern families were affected. The war spared none from having to be ingenious and find substitutes. People were usually ready and able to spread the news about a new substitute they discovered. Such substitutes were usually called, “Confederate.” There were many “Confederate” imitation products such as “Confederate” flour, “Confederate” candles, and “Confederate” dresses. Some complained that “Confederate” defined substitute products that were, “rough, unfinished, unfashionable or poor.”¹⁶¹

¹⁵⁸ Hague, 14.

¹⁵⁹ Hopley, Catharine C., *Life in the South; from the Commencement of the War. By a Blockaded British Subject* (London: British Library Historical Print Editions, 2011) II, 116.

¹⁶⁰ David Dodge, “Domestic Economy in the Confederacy,” *Atlantic Monthly*, LVIII (1886), 299.

¹⁶¹ Sarah M. Dawson, *A Confederate Girl's Diary* (Boston: Houghton Mifflin Company, 1913), 233.

While the men of the South were fighting an enemy on battlefields, the women of the South were fighting with substitutes on the Home Front. Parthenia Hague recalled,

Our minds were so taxed in devising temporary expedients, and our hands so busy carrying them into effect; we really had no time to brood over the sorrowful news that the papers were daily depicting We even made merry over our inevitable privations and inconveniences. Indeed we grew so accustomed to them that they scarcely seemed privations.¹⁶²

Despite some warnings, the Southern population was slow to face the problems created by shortages. They became concerned when they realized the supplies they had on hand were dwindling. Only after their supplies were entirely used up, did the population awaken to the fact that shortages were obstacles in the way of victory. People tried to remove the obstacles. Even though some products were replaced by successful substitutes, not every product could be replaced.

The food shortage was felt by a majority of Southern civilians and military personnel more than any other. The task of supplying both civilian and military needs proved to be a major problem that was never solved. The shortage of labor in the South and the productive acreage that became battlefields made food cultivation a serious problem. Even when there was an abundance of food, the breakdown of the transportation system prevented its distribution to areas of need. The result was hunger and near starvation in some parts of the Confederacy. Throughout the South, substitutes were forced upon the population by the inability to get commodities such as coffee, salt, and meat.

Letters and diaries from the war years contain many references to the food shortage across the South. Nearly everyone seems to have felt the deprivations of the war years. While

¹⁶² Hague, 110.

one family may have had enough to eat, their neighbors might be experiencing hunger. In a small town in Virginia, Mrs. Cornelia McDonald was subsisting on bread and water, there were some homes where there was plenty to eat.¹⁶³ Another woman wrote that she could not remember getting up from a single meal in Richmond from 1864-1865 without, “wishing there were more of it.”¹⁶⁴ While there were some families that managed to have sufficient amounts of food, most felt the pangs of hunger.

There were constant food shortages in certain areas in the states that formed the Confederacy. Farms near the battle lines were often cleaned out of food by forage parties from both Confederate and Union armies. Some parts of Virginia which were on the battlelines for most of the war, fought a battle against starvation for most of the war.¹⁶⁵ Food shortages spared very few. Even well-off families in the South such as Joseph LeConte and his daughter Emma, mention their scarcity of food. “We live tolerably poorly. Two meals a day. Two plates of bread for breakfast, one of wheat flour as five bags were recently made a present to us else we would only have corn bread.... Dinner consists of a very small piece of meat, generally beef, a few potatoes and a dish of hominy and a pone of corn bread.”¹⁶⁶

One of the greatest food shortages was the shortage of meat. The lack of this essential item caused concern among many Southerners. Antebellum, the South usually consumed great quantities of pork, but even this was scarce during the war. Scarcity of the feed, the absence of

¹⁶³ Cornelia P. McDonald, *A Diary with Reminiscences of the War and Refugee Life in the Shenandoah Valley* (Nashville: Cullom and Ghertner, 1934), 24.

¹⁶⁴ Mrs. Burton Harrison, *Recollections Grave and Gay* (New York: Charles Scribner’s Sons, 1912), 191.

¹⁶⁵ Virginia Clay-Clopton, *A Belle of the Fifties* (New York: Doubleday, Page and Company, 1905), 222.

¹⁶⁶ Emma LeConte. *When the World Ended: The Diary of Emma LeConte*. Edited by Earl S. Miers. (Lincoln: University of Nebraska Press, 1987), 17.

men to butcher the animals and the lack of sufficient salt to cure the meat combined to produce the shortage. Much of the beef consumed in the South had been transported from Tennessee, Kentucky, and the Midwest. By the middle of 1863, these areas had been lost to the Confederacy. Other areas that produced beef in quantity, such as Florida, could not transport it due to the lack of spare parts of the Southern railroads.¹⁶⁷ The people living east of the Mississippi turned toward raising their own stock to produce meat. It took time to raise cattle for slaughter and the lack of grain for feed made it very difficult for the eastern Confederacy to produce their own meat in enough quantities. The meat shortage of the Confederacy remained acute during the war.

Many butcher shops were closed and the few that remained open usually had little or no meat to purchase. Housewives had to rise early and rush to purchase the rare commodity. What little there was to purchase was usually gone by the early morning. The lucky people who did get meat found got much less to feed a family. Any quantity of meat had to be stretched. In 1863, one journalist knew a pound of meat had to feed “seven hungry children, the parents and a servant.”¹⁶⁸ By 1864, another Southerner recalled, “An ounce of meat, daily, is the allowance to each member of my family, the cat and parrot included.”¹⁶⁹

The most common substitutes for meat were fish and fowl. One diarist wrote, “fish became the staple article” of people’s diet. Even to get this one had to be at the market “before the break of day, and frequently, then, the crowd that pressed around the fish-market was so

¹⁶⁷ Robert A. Taylor, “Rebel Beef: Florida Cattle and the Confederate Army, 1862-1864.” *The Florida Historical Quarterly* 67, no. 1 (July 1988), 20.

¹⁶⁸ McDonald, 198.

¹⁶⁹ Jones, Vol. II, 185.

dense that many were compelled to leave without anything for a dinner.”¹⁷⁰ In an effort to get fish, one could go fishing. One Louisiana father awakened his children every morning with the call, “Get up girls, fish or no breakfast.”¹⁷¹ That more fish were not used as a substitute for meat was the shortage of fishing tackle. There was a shortage of fishhooks, lines, and traps. There was also the difficulty of fishing off the coast during the war because of naval activity.¹⁷²

In addition to fish, there were other substitutes such as eggs, fowl, and wild game. A housewife later recalled there were “a hundred ways of cooking an egg became well-known in the Confederacy.”¹⁷³ Hunting became not just a sport, but a method of sustenance in rural areas. Hunting was often curtailed by the lack of ammunition. The army had first dibs on any ammunition.¹⁷⁴

With the shortage of meat, the scarcity of fishing tackle, and ammunition for hunting difficult to obtain, other substitutes could still be found if one was not squeamish. By the fall of 1864, things had become so desperate that rats had become an item for meat. President Davis was quoted as saying that there was no reason for not eating them. He said, “I don’t see why rats, if fat, are not as good as squirrels.”¹⁷⁵ Recipes for cooking rats were circulated among women in Richmond.¹⁷⁶ Rats never became a staple in diets that mule meat did. Mrs. Roger A. Pryor

¹⁷⁰ Sallie B. Putnam, *Richmond During the War: Four Years of Personal Observation* (Lincoln: University of Nebraska Press, 1996), 113.

¹⁷¹ Frances Fearn, *Diary of a Refugee* (New York: Moffat, Yard and Company, 1910), 18-19.

¹⁷² *OR*. Series IV, II, 915-918.

¹⁷³ Harrison, 134-135.

¹⁷⁴ Jones. Vol. II, 135.

¹⁷⁵ *Ibid.* 175.

wrote that one morning, “I saw a dead mule lying on the common, and out of its side had been cut a very neat, square, chunk of flesh.”¹⁷⁷

The meat shortage was compounded by the shortage of salt for its preservation. Table salt may seem like an unusual substance to lack. Besides being an essential ingredient for good health, salt was commonly used as a meat preservative and in leather tanning. Salt was common in Northern states with salt mines in New York and other places. The blockade stopped its importation to the South. It was totally lacking in many parts of the Confederacy which only had two mines to supply all of its salt needs. The Union captured one important salt deposit near New Orleans in early 1862. After that, there was only one other salt mine in southwest Virginia to supply salt to the Confederacy.

This supply was at the artesian salt brine deposits at Saltville, Virginia. There were two large battles over these salt deposits and raids to destroy the railroad tracks that led to it.¹⁷⁸ The shortage of salt prompted industries to dehydrate salt water for sea salt to be set up on the coastline of the Confederacy. Union raiding parties continued to destroy these operations during the war.

The blockade even cut off the Confederacy from its usual supply of medicines. Soldiers and civilians suffered from the lack of medications. Mrs. Burton Harrison recalled, “We were then in straits for everything considered indispensable in the outfit of modern hospitals... I can say that our experience was continually shocking and distressing...”¹⁷⁹ Southerners on the home

¹⁷⁶ Phoebe Y. Pember, *A Southern Woman's Story: Life in Confederate Richmond*. Edited by Bell Irvin Wiley. (Marietta, GA: Mockingbird Books, 1994), 104.

¹⁷⁷ Mrs. Roger A Pryor, *My Day: Reminiscences of a Long Life* (New York: The Macmillan Company, 1909), 204.

¹⁷⁸ Ella Lonn, *Salt as a Factor in the Confederacy* (Tuscaloosa: University of Alabama Press, 1965), 188-203.

¹⁷⁹ Mrs. Burton Harrison, *Recollections Grave and Gay* (New York: Charles Scribner's Sons, 1912), 188

front were encouraged to use what are known today as “homeopathic” medications. Herbs and plants with some medicinal properties could be found in Southern fields and forests; Southern botanists described the plants that could be used for medications.¹⁸⁰ Many of these substitutes were home remedies, but others were homeopathic substitutes for manufactured medications. These plant-based substitutes were meant as a stopgap measure until the time when the supply of medications could be restored.

The Confederate military had to use large amounts of drugs for surgical procedures and to cure camp diseases. There were four ways that the Confederate military could get the drugs they needed: imports from blockade running ships, smuggling through the lines, capturing from Northern armies, or manufacturing them in medical laboratories. The military claimed priority for any drugs that were smuggled into the Confederacy in blockade running vessels, but the quantities were never enough. In a report from the Confederate Treasury Department on January 4, 1865, there were 2,639 packages of medicines brought in as of October 26, 1864.¹⁸¹ The Official Record states, as of December 16, 1864 the amount of medicinal drugs that were smuggled into the port of Wilmington, North Carolina was, “Seventy cases, eight casks, three kegs, and one bag of assorted chemicals, one bottle of mercury, and ten barrels of alcohol; and for the port of Charleston seventy-two barrels of alcohol and one case of bismuth.”¹⁸² Relying on the capture of drugs from Northern hospitals or supply wagons could not ensure a constant supply of medications. In the absence of imported drugs, the Confederate Army established

¹⁸⁰ Francis P. Porcher, *Resources of the Southern Fields and Forests, Medical, Economical and Agricultural* (Charleston: Walker, Evans, and Cogswell 1869).

¹⁸¹ Jones. Vol. II, 375.

¹⁸² *OR*. Series IV, III, 955-958.

several medical laboratories to manufacture drugs for military uses. The laboratories produced medicines from indigenous plants and also made non-plant-based drugs. The drugs manufactured in these laboratories did little to cure or relieve the major ills of Civil War soldiers such as infectious diseases, nutritional deficits, and battlefield wounds.¹⁸³

The blockade also made beverages scarce in the Confederacy. Tea and coffee became hard to find. Coffee was sorely missed by many. When one diarist had to give it up, she complained, “It made me perfectly miserable; I lost my elasticity of spirit.”¹⁸⁴ In cities, people began to see “Coffee Houses” where no coffee was served.”¹⁸⁵

There were those who managed to have a little coffee on special occasions. Some had hoarded a supply and a little continued to come in through the blockade. Those who had coffee tried to stretch their supply by having a weak brew or added other ingredients to make their supply go farther. These blends might include parched corn, rye, wheat, okra seed, or chicory mixed in with some ground coffee.¹⁸⁶ The diarists give conflicting accounts of how tasty these blended mixtures were. One diarist declared, “you scarcely detect the adulteration.”¹⁸⁷ Another thought adulterated coffee, “was often so nauseous that it was next to impossible to force it upon the stomach.”¹⁸⁸

¹⁸³Guy R. Hasegawa and F. Terry Hambrecht, “The Confederate Medical Laboratories” *Southern Medical Journal* 96, no. 12 (December 2003), 1228.

¹⁸⁴ Judith W. McGuire, *Diary of a Southern Refugee During the War by a Lady of Virginia* (Lincoln: University of Nebraska Press, 1995), 257.

¹⁸⁵ DeLeon, 268.

¹⁸⁶ McGuire, 81-82.

¹⁸⁷ Op Sit., 82.

¹⁸⁸ Putnam, 79.

The lack of coffee produced more substitutes than other products. The civilian population attacked the problem of the lack of imported coffee with energy and determination. Real coffee was mixed with many substitutes or the substitutes stood in by themselves for real coffee. Nearly all women made their own combinations and shared their secret with those who were interested. Among the most popular of the substitutes was rye. This grain was boiled, dried, then ground to imitate coffee. Laura E. Lee, a teenager in the South recalled, "Aunt Pallas used to make our substitute for coffee; ... when she tried roasted rye, we found it the next best thing to the genuine coffee."¹⁸⁹

Next to coffee, the beverages most often mentioned among the shortages was alcohol. When choice wines, brandies, and whiskies were brought through the blockade, they were sold immediately despite their great cost. This scarcity forced people to seek substitutes. "Moonshiners" did a good business. Palatable wines and brandies could be made from blackberries, apples, peaches, plums, watermelon juice, elderberries, and even carrots. In Alabama, brandy made from sweet potatoes was described as, "liquified lightning."¹⁹⁰

Because of the scarcity of food and drink, refreshments at social gatherings were very simple. Gatherings called, "Starvation parties" were popular during the war. The only things to be had were good fellowship and water. Occasionally, a fiddler would be hired so there would be dancing, but beverages would be, "strictly forbidden."¹⁹¹

¹⁸⁹ Laura E. Lee, *Forget-me-Nots of the Civil War: A Romance Containing Reminiscences and Original Letters of Two Confederate Soldiers* (Gloucestershire: Dodo Press, 1909), 157..

¹⁹⁰ Mercer Otey, "Story of Our Great War." *Confederate Veteran* IX (1901), 154.

¹⁹¹ DeLeon, 396.

The shortage of clothing was slower to develop than the food shortage, but it became serious by the end of the war. During the first years of the war, the population faced no great clothing shortage. As the months rolled into years, old clothing wore out and there was little to replace it. Southern ingenuity produced many unusual and unique articles of clothing. All sorts of unusual materials were made into wearable clothes.

The South received its major portion of clothing and shoes from either Europe or the North. The cotton mills of the South only produced a course grade of cloth most often used to clothe slaves. Even if they had produced better quality cloth, there were not enough of them to clothe the Southern population. The same was true for shoes. There were cobblers in the South, but not enough to supply the entire population with shoes. Most of the clothing manufacturers were taken over by the Confederate government to supply the clothing needed by the military. The civilian population had to solve the problem of clothing by producing their own or by reusing old garments. “Every household now became a miniature factory in itself...”¹⁹²

Southern housewives became adept at making clothing. One journalist recalled, “Everything the men wore was dyed and woven at home; pants were either butternut, blue, or light purple, occasionally light yellow; shirts course, but snowy white or what would now be called cream. Everybody knitted socks....Hats and bonnets of all sorts and sizes were made of straw or palmetto, and trimmed with the same.”¹⁹³

¹⁹² Hague, 39.

¹⁹³ Fanny A. Beers, *Memories: A Record of Personal Experience and Adventure During Four Years of War* (Philadelphia: Press of Lippincott Company, 1888), 116-117.

Of all the shortages of clothing, none was so serious as the shortage of shoes. Among soldiers and civilians, the problem was serious. Mrs. Burton Harrison had great difficulty in finding shoes in Virginia.¹⁹⁴ In West Texas, a refugee was forced to search for 20 miles before he found a pair in a county store.¹⁹⁵ There were even those who felt the shortage of shoes was so great that they refused to go walking, “for fear of wearing out their shoes.”¹⁹⁶ In January 1865, General Edward Porter Alexander recalled getting a bargain on a pair of boots that a Richmond shoemaker had made for another client who did not pick them up. Alexander paid \$500.00 for the boots as opposed to one of his friends recently paying \$700.00.¹⁹⁷

As prewar shoes wore out, women had to take on the task of trying to procure new shoes or trying to repair shoes. It was a common sight “to come suddenly upon a bevy of pretty girls sitting tailor fashion making and mending shoes.”¹⁹⁸ People experimented and found new hides from animals that could be made into shoes. No animal was safe from amateur cobblers once the value of its skin was established. Horsehide was commonly used to make leather. Since large numbers of horses were killed in battle, it was a common sight to see agents of the Confederate War Department or civilians collecting horse corpses to use their skins for shoes.¹⁹⁹ The skins of deer, sheep, goats, and pigs were used for shoes during the war. Pigskin was deemed to be

¹⁹⁴ Harrison, 135.

¹⁹⁵ Fearn, 40-41.

¹⁹⁶ Hopley, Vol. II, 105.

¹⁹⁷ Edward Porter Alexander, *Fighting for the Confederacy: The Personal Recollections of Edward Porter Alexander*. Edited by Gary Gallagher (Chapel Hill: The University of North Carolina Press, 1989), 507.

¹⁹⁸ Fontaine, *Confederate Veteran*. IV (1896), 301.

¹⁹⁹ Higgins, *Confederate Veteran*. XXI (1913), 163.

unsatisfactory because shoes made from its leather stretched out of shape within a few days of being worn.²⁰⁰

Shoes could also be made from old leather items. Prewar leather was preferred over newly made leather because it was better quality and longer lasting. Anything containing suitable leather for a pair of shoes might be converted. Leather furniture, trunks, belts, gin-bands, and saddles were used to manufacture shoes.²⁰¹ Whenever worn out cavalry boots were discarded from worn-out soles or feet, ingenious women would use the tops for shoes for themselves or their children. Fine children's shoes could also be made from the fine leather on Morocco book bindings or the fine leather from pocketbooks.²⁰²

When it was too difficult to obtain either old or new leather, substitutes could still be found. The most widely used was wood. When leather soles for shoes could not be obtained, wooden soles were manufactured. Cloth shoes were also made. Materials such as canvas and duck proved durable, but not as durable as wood. Judith McGuire recalled making a pair of shoes from the canvas of the sails from a shipwreck in the James River.²⁰³ Mrs. Roger A. Pryor made shoes for her baby from carpet which she lined with flannel. Cloth shoes were colorful if not durable. They were dyed brilliant colors by berries collected in Southern forests. Footwear could also be knitted. "Someone had learned to knit slippers, and it was not long before most of the women in our settlement had a pair of slippers on the knitting needles."²⁰⁴

²⁰⁰ Hague, 37.

²⁰¹ Clay-Clopton, 223.

²⁰² Fontaine, 301.

²⁰³ McGuire, 251-252.

The shortage of cloth was never as critical as the shortage of shoes, but it was a major problem. Old clothes were usually converted or renovated into different items. With the difficulty of obtaining shoes, many people resorted to going barefoot.²⁰⁵ Others were happy to be able to purchase, even secondhand, shoes that did not fit.²⁰⁶ It was generally believed that a person who receive a pair of shoes was given a great gift.²⁰⁷

The articles of clothing most frequently described by women were hats. The struggle to obtain stylish head coverings was constant. While most women during the war years did not spin or weave, nearly all made hats. Hats were made from nearly any material. Many were constructed from old dresses, scraps of material, or from older hats. Women frequently pooled their resources including bits of lace, velvet and ribbons. Hats would then be made for the entire group. “Neighbor would divide with neighbor the tarlatan for trimming purposes, and some would go quite a distance for only enough to trim a hat.”²⁰⁸ Wartime shortages forced women to make their own hats. Few could afford to go to millinery shops where “the few milliners of the town were asking \$500 for hats made of the homeliest materials from ‘other side’ patterns.”²⁰⁹

The clothing situation in the Confederacy became critical by the fall of 1863. The blockade and advancing armies made it worse with each passing month. The Southern population rose to the challenge with ingenuity and good humor. Necessity became the “mother

²⁰⁴ Hague, 52.

²⁰⁵ Robertson, Margaret B., *My Childhood Recollections of the War: Life in the Confederate Stronghold of Staunton, Virginia During the War Between the States* (Staunton, VA: Stauntonhistory, 2013), 12.

²⁰⁶ Jones, Vol. II. 132.

²⁰⁷ Harrison, 135.

²⁰⁸ Hague, 57.

²⁰⁹ Harrison, 148.

of invention.” Citizens proved they could manage even when the blockade had cut off nearly all imports.

As we shall see, the blockade would squeeze the Southern population until the civilians believed they could give no more for the Southern cause. The blockade would prove to be a major factor in the demoralization and defeat of the population of the Confederacy and its armed forces.

Chapter 6: Effects of the Blockade on the Confederate Military Effort

The blockade by the Union navy may have affected the Confederate armed forces less than the civilian population, but its effects were still felt. Confederate forces usually suffered from limited supplies during the war and there was much improvisation. The blockade made the Confederate Quartermaster Department and the Subsistence Department reliant on three ways to obtain supplies for the forces of the Confederacy. These three ways were: appropriation from civilians, manufacturing supplies and ordnance in factories set up in the South, and purchasing materiel from foreign sources, then shipping it in with blockade runners.

The materiel needs for a 19th century army were vast. Just some of the raw materials needed were: leather, copper, iron, nitre, saltpeter, and cotton and wool cloth. Substitute materials could be used for some minerals, but Confederate forces were short on military supplies throughout the war. Boots, blankets, and horses were always in short supply. Food was another essential that was rationed and shipped across the South by railroads. Salt was used in the leather tanning process. The Confederacy's salt shortage ensured there were not enough leather goods including saddles, tack, and harnesses for horses.

“In terms of basic military necessities, the South imported at least 400,000 rifles, or more than 60 percent of the nation's modern arms. About 3 million pounds of lead came through the blockade, which by [Josiah] Gorgas's estimate amounted to one-third of the Army's requirements. Besides these items, over 2,250,000 pounds of saltpeter, or two-thirds of this vital ingredient for powder, came from overseas. Without blockade running the nation's military would have been without proper supplies of arms, bullets, and powder.”²¹⁰

Despite imports from blockade runners, the Union blockade made it necessary for the Confederate government to have to rely on its own industry to manufacture much of its own

²¹⁰ Stephen R. Wise, *Lifeline of the Confederacy: Blockade Running During the Civil War* (Columbia: University of South Carolina Press, 1988), 226.

military materiel. Nitre and lead were mined in different parts of the Confederacy and shipped to plants using the railroads. In November 1863, a Union cavalry raid destroyed the only copper rolling mill in the Confederacy.²¹¹ Copper was essential to manufacture the percussion caps in firearms and to make bronze cannons. The Confederates had to find other sources of these crucial elements for war materiel.

The Union blockade caused supply problems for the Confederate army. The railroad problems caused other effects such as transporting enough lead, copper, salt, and food. With these things in short supply, the morale of the Confederate armies suffered. The significance of the Union blockade on the Confederacy was that soon after Wilmington, North Carolina, the last major port of the South, fell to Union naval forces, Confederate armies surrendered.

In 1861, the newly formed Confederate forces relied on weapons that had been seized from Federal arsenals across the South. The Chief of the Bureau of Ordnance, Josiah Gorgas, estimated that Confederate forces had 159,000 small arms, including flintlock rifles, 429 cannons, 330,000 pounds of cannon powder, 162,000 pounds of musket and rifle powder, and 3,200,000 cartridges for small arms.²¹² With little in the way of reserves to replace and repair the weapons he had, Gorgas had a daunting task to supply an army projected to reach 100,000 men.

William P. Miles was appointed Quartermaster General for the Confederate forces. He had to furnish uniforms, boots, tents, and other materiel the army would need. In 1861, he set up contractors for uniforms, but it became obvious that the Confederate government itself would

²¹¹ Frank Moore, (Editor), *The Rebellion Record: A Diary of American Events: Documents and Narratives* (New York : D. Van Nostrand, 1864-1868), Vol. 8. Chapter 16, 209.

²¹² *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies*. Washington: Government Printing Office, 1880-1901. Series IV, I, 227-228.

have to increase the sources of supply to provide uniforms for its soldiers. As early as May, 1861, Miles found that the Confederacy did not have enough blankets, flannel cloth, shoes, or woolen cloth to equip the tiny regular army, much less the thousands of volunteers. He suggested that these things be obtained from Europe.²¹³ Furthermore, the supply system at the Battle of Manassas in July 1861 affected the prospects of the Confederate forces being able to follow up their victory and capture Washington D.C.. Even at that early date, Miles could not stockpile coffee, vinegar, and soap because these items were already in short supply.²¹⁴ The situation would only get worse as the blockade tightened. Faced with shortages in the Confederacy, the War Department turned to foreign sources to supply its armies. Even the Quartermaster General made plans to import supplies past the Union blockaders.²¹⁵

Caleb Huse was dispatched to Europe by the War Department to obtain supplies for the Confederate forces. His orders were to purchase arms and munitions of any kind from any supplier willing to sell. He was instrumental in getting 15,000 small arms, gunpowder, and saltpeter as well as blankets, shoes, and uniforms. His efforts enabled the War Department to equip its soldiers instead of falling critically short of necessary supplies in the early years of the war.²¹⁶

Despite Huse's successes, the Confederate armies needed other critical supplies that were cut off by the blockade. These were lead, saltpeter, and leather. The Confederate Niter and Mining Corps set up new mines, but they were inadequate to produce the amount of lead and

²¹³ *OR*, Series IV, I, 314-315.

²¹⁴ Richard D. Goff, *Confederate Supply* (Durham: Duke University Press, 1969), 18.

²¹⁵ Goff, 42.

²¹⁶ *Ibid*, 44.

saltpeter that the army needed. Saltpeter operations in Arkansas were hampered by the lack of labor to mine it and the problems of transporting it East of the Mississippi.²¹⁷

By 1863, despite the successes of the Army of Northern Virginia, the blockade still caused a shortage of critical supplies. The army was short on shoes, underwear, and blankets. General Lee was forced to write to Jefferson Davis about the supply shortages. Davis then passed on Lee's complaints to the Quartermaster General. December 1862 inspection reports of the Army of Northern Virginia noted units that were "badly clothed and shod."²¹⁸

Beset by shortages at home, the Confederacy continued to rely heavily on supplies from abroad that could be slipped through the blockade. Even as the blockaders grew more efficient at intercepting blockade runners, the Confederate government relied on foreign suppliers to supply saltpeter, arms, lead, medical supplies and meat.²¹⁹ Cotton was exported and used for credit to pay for the imported materiel. The War Department was even forced to operate its own blockade runners to carry military supplies into the Confederacy.

Lucius B. Northrop, the Commissary-General of Subsistence for the Confederate Army, foresaw the coming meat shortage for Confederate forces. He reported to Jefferson Davis in August 1861, "The real evil is ahead. There are not hogs in the Confederacy sufficient for the Army, Hence, competition must be anticipated by arranging for the purchase of the animals and getting salt to cure them. Furthermore beeves must be provided for the coming Spring; cattle

²¹⁷ James J. Johnston and James J. Johnson. "Bullets for Johnny Reb: Confederate Nitre and Mining Bureau in Arkansas. *The Arkansas Historical Quarterly* 49, no. 2 (Summer 1990), 161-162.

²¹⁸ *OR*. Series I, XXI, 1041 and Series I. XIX (2), 718-719.

²¹⁹ Goff, 120-121.

must be collected from Texas before the rains set in, and be herded in ranging grounds convenient to the Mississippi. I am arranging for that matter.”²²⁰

Northrop attempted to get meat from border states such as Kentucky, but General Bragg’s retreat from Kentucky in 1862 placed a severe strain on the supply chain. Commissary-Major Frank Ruffin reported, “General Bragg’s army since leaving Kentucky has drawn its supplies chiefly from the reserves of Atlanta. These drafts have been of such magnitude that there is but about 500,000 pounds here. It is quite certain that want awaits both armies [in Virginia and Tennessee]”²²¹ Tennessee was to provide the bulk of the meat for Confederate troops thereafter. Tennessee provided 12 million pounds of bacon in 1862, but could expect none in 1863. Beef was in also in short supply. Northrop wrote, “The future of beef supply for the Army is so nearly exhausted that this Bureau does not know whence more is to be obtained.”²²² By the end of 1863, Union troops controlled most of Tennessee and disrupted the supply of meat from that state.

Beef could be transported from other parts of the South. The Union navy’s control of the Mississippi between Vicksburg, Mississippi and Memphis, Tennessee blocked shipment of beef from Arkansas. Supplies of beef could be obtained from Florida, but there were two major problems. The first was that the competition between civilian needs and the army was intensifying. General Bragg requested 400,000 pounds of beef from Florida in March 1863, but only received half of what he wanted. Troops in Virginia and citizens of Charleston, South Carolina requested beef from Florida. Florida drove 30,000 head of cattle from the state in 1863, but less in 1864. These amounts were not enough to supply both the soldiers and civilians across

²²⁰ Dunbar Rowland (Editor), *Jefferson Davis, Constitutionalist: His Letters, Papers and Speeches* (Jackson: Mississippi Department of Archives and History, 1923), Vol. 5, 127.

²²¹ *OR*, Series I, LI, (2), 738.

²²² *OR*, Series IV, II, 192-193.

the Confederacy. The second problem was from Union naval control of the Atlantic coast. Beef had to be shipped by rail from the few depots in north Florida or herds could be driven to railheads in Georgia. Aside from blockading Florida's ports, raiding parties from the Union naval vessels damaged salt works, railroads, and cattle herds themselves.²²³ This further diminished what Florida could supply to the Confederacy.

Texas may have been able to supply beef for most of the states and the military except the Union blockade hampered coastal shipping. Texas beef may have been able to reach Gulf coast ports, then shipped by rail to Tennessee or Virginia. Deliveries of meat from Texas could have alleviated the shortage of meat in the eastern part of the Confederacy.

The blockade disrupted the flow of cattle in the Gulf region. The Union blockade of Galveston, New Orleans, Mobile, and other Gulf ports cut off the transportation of Texas cattle to other parts of the Confederacy. Union warships ended coastal shipping between Texas and these ports on the Gulf of Mexico. Overland routes between west Texas and New Orleans existed, but were cut off after the fall of New Orleans in April, 1862. Plans to drive Texas cattle to Tennessee came to nothing. "Arrangements were made in 1862-63 to bring cattle from those states [Texas and Florida] and put them on the grass lands of Virginia and Tennessee, but the long drive, want of good grass on the way, caused the attempt that was made with a few droves to fail."²²⁴ Like Florida, the blockade caused Texas to remain an untapped supply resource for the Confederacy.

²²³ *OR*, Series I, XXXII, (2), 565 and Robert A. Taylor, *Rebel Storehouse: Florida in the Confederate Economy* (Tuscaloosa, AL: The University of Alabama Press, 1995), 31.

²²⁴ *OR*. Series IV, III, 478, 508.

By 1863, officials in the confederacy were all too aware that the Confederate war effort depended on the uninterrupted flow of war materials from overseas through the blockade. Domestic production could not produce the massive amounts of saltpeter, metals, leather and woolen goods that were required by the army. Supplies procured overseas meant that they would have to run the gauntlet and try to get past the Union blockade.

In order to purchase supplies from abroad, the Confederate government used cotton as its currency to pay for overseas purchases. The government relied on private shippers to run the blockade and ship cotton out, then their agents could exchange it for materiel. The shippers would then run the blockade again to bring war materiel back to the Confederacy. By 1863, more cotton had to be shipped out of the South in order to pay for foreign-manufactured supplies as the South needed more collateral on foreign markets. Since blockade-runners operated for profit, many gave government cotton and goods low priority on their vessels.

One answer to this problem of shipping space was for the Confederate government to operate its own ships to run the blockade. The government-owned steamers proved successful to slip into and out of Bermuda and Nassau. Since there were less than 10 of these vessels, they could never meet the projected needs of the Quartermaster Department.

One answer to the problem of shipping space was to make draconian contracts with shippers for one-half of their cargo space for government supplies. This meant that outgoing blockade runners would have to reserve half of their cargo space for bulky cotton at standard freight rates. Incoming ships would have to reserve half of their cargo space for unprofitable government goods. If a shipper refused to comply, their vessel could be impressed into government service.²²⁵

²²⁵ *OR*. Series IV, II, 714-715.

With the Erlanger Loan of March 1863, Southern cotton was again being shipped to Europe on blockade runners in exchange for military supplies.²²⁶ By mid-1863, the supply bureaus had ordered heavily from abroad, but there were still too few government-owned ships to get the cotton to European markets. The purchased supplies could not get past the blockade on so few ships. During the autumn of 1863, union blockaders began to catch more of the state-owned blockade runners. A new policy had to be implemented to get more of the vitally needed supplies past the blockade.

The Confederate government resorted to contracting groups privately-operated blockade runners to run its supplies into and out of blockaded ports. These ships would be exempt from government “regulations” as the 50% cargo space for government goods came to be called. The government also passed a stringent law in February 1864 titled “An Act to Prohibit the Importation of Luxuries or of Articles Not Necessary or of Common Use.”²²⁷ This law prohibited the export of sugar, tobacco, molasses, and rice on blockade-running vessels and the import of most non-essential goods. The government now heavily regulated overseas commerce that ran the blockade.

Even Lucius B. Northrop complained about this new regulation, “Meat is a bulky article and will not pay and hence blockade runners will not bring it.... the trade regulations so far have failed to bring subsistence, and if insisted on as the exclusive police of the government, will kill all importation of that character.”²²⁸

²²⁶ Stephen R. Wise, *Lifeline of the Confederacy: Blockade Running During the Civil War* (Columbia: University of South Carolina Press, 1988), 94.

²²⁷ *The Statutes at Large of the Provisional Government of the Confederate States of America, Passed at the First Session of the Second Congress, 1864: Carefully Collated With the Originals at Richmond* (Charleston: Legare Street Press, 2021), 15.

²²⁸ *OR*. Series IV, III, 739.

Shippers also strongly protested these stringent regulations. The result of this law was that many ships just left the blockade-running trade. This loss only hurt the trickly of supplies that Confederate government ran through the blockade. From August 1863 to March 1864, only 1,600 bales of cotton slipped through the blockade to pay for supplies. The War Department estimated it needed 6,000 bales exported monthly in order to meet the needs of the Confederate forces for the last six months of 1864.²²⁹

The Union blockade actually made the import gap worse than the export gap during this time as other Confederate bureaus were affected. The Subsistence Department estimated that it would need 2,300 tons of supplies monthly, but was not getting them. The Nitre and Mining Bureau also complained of a gap in its goal of 1,600 tons of needed material each month. The problem of adequate shipping to get past the blockade remained unsolved.²³⁰

While government leaders and administrators struggled with policies and deficiencies, supply problems caused by the blockade affected campaigns and strategy. By the late spring of 1863, when Confederate generals planned offensives, there appeared to be no reason for alarm that deficiencies of food, clothing, arms, and other materiel would be great enough to interfere with the efficiency of their forces. By the end of 1863 however, lost battles and unexpected shortages began to produce a defensive attitude on the part of Confederate generals. Lee wrote, "I cannot see how we can operate with our present supplies. Any derangement ... would render it impossible for me to keep the army together. We have rations for the troops to-day and to-morrow."²³¹

²²⁹ *OR*. Series IV, III, 587.

²³⁰ *OR*. Series IV, III, 589.

²³¹ *OR*. Series 1. XXXIII, 1275.

In Lee's invasion of the North in 1863, his decision for offensive action in Pennsylvania was not based primarily on supply considerations. His army managed to supply itself from its supply train, purchases, and foraging. Lee did have trouble finding fodder and his men wore out shoes faster than they could procure new ones.²³²

By the autumn of 1863, supply problems had become a factor. Lee's men began to run short on shoes and woolen clothing because Union blockaders had intercepted the blockade runners on which the Quartermaster Department depended. Lee told the Quartermaster General that his planned pursuit of Meade during the Bristoe Station campaign had to be aborted. The sole factor that prevented Lee from attacking Meade was supplies.

The want of shoes, clothing, overcoats, and blankets if is very great. Nothing But my willingness to expose the men to hardships what would have resulted from moving them into Loudoun in their present condition induced me to return to the Rappahannock. But I was averse to marching them over the rough roads of that region, at a season, too, when frosts are certain and snows probable, unless they are better provided to encounter them without suffering. I should otherwise have endeavored to detain General Meade near the Potomac, if I could not throw him to the north side.²³³

In late 1863, Secretary of War James A. Seddon promised Lee that the Army of Northern Virginia would be given supply priority over other forces in the field. In September, Major S.B. French a Commissary officer in Richmond, had started to procure corn from across the Confederacy because the wheat crop in Virginia had produced less than anticipated. He acquired nearly 50,000 bushels of corn, but none arrived before mid-January 1864 because of transportation problems. A commissary officer in Columbus Georgia said that he could supply 75,000 bushels of corn to Lee's army every month, except for "the obstacle of transportation."²³⁴

²³² *OR*. Series 1, XXVII (2), 298 and 302.

²³³ *OR*. Series 1, XXIX (2), 794.

²³⁴ *OR*. Series I, XLVI (2), 1224-1225.

The lack of sufficient supplies also affected the Confederate armies in the West in 1863 more than Lee's forces in the East. Confederate General Joseph E. Johnston felt his forces were hamstrung by shortages of both men and supplies when he was placed in command of the Department of the West in May 1863. One of the reasons the important city of Vicksburg fell was because of a lack of supplies for Johnston's forces. By his standards, his forces were unprepared to take the field. They evacuated Jackson and did not try and relieve Vicksburg. Since Johnston's forces were short on clothing, ammunition, and small arms, he believed his forces were unfit for operations.²³⁵

Johnston's actions were also viewed as wasting the supplies the Confederate army did have. Jefferson Davis blamed Johnston for the loss of supplies at Manassas and the shipbuilding equipment at Norfolk by his decision to retreat his forces in 1862.²³⁶ One of Johnston's own officers, Colonel James Phelan, even blamed Johnston's wastefulness for the problems of the Department of the West. He wrote, "The loss of supplies during the time he was in command had been so great, and our difficulties for the want of them so distressing, as to cripple our military operations to a far greater extent that can readily be appreciated."²³⁷ The Confederacy was already hard-pressed to obtain supplies through the blockade. The wastage by its own commanders was a factor that actually caused harm to the war effort.

Even though General Braxton Bragg's Army of the Tennessee was fairly well supplied in 1863, like every Confederate army, subsistence was the only real shortage.²³⁸ When Union

²³⁵ *OR*. Series 1, XXIV, (1), 224-225.

²³⁶ Rowland. *Jefferson Davis*, Vol. VI, 494-495.

²³⁷ Rowland, 496.

²³⁸ *OR*. Series 1, XXX, (2) 24.

General Rosecrans moved across the Tennessee River and around Bragg's left flank, Bragg claimed he had too little transportation and supplies to counterattack to stop Rosecrans' movements.²³⁹ Bragg's decision to remain on the defensive meant that he would have to abandon the strategic railroad junction of Chattanooga to place his army between Rosecrans' advancing troops and the railroad to Atlanta. Chattanooga's railways were of great value. Not only was it a gateway to Georgia, but it also contained one of the main railways that traversed the Confederacy to supply meat, nitre and its main source of copper from Ducktown, Tennessee.

The Battle of Chickamauga and its aftermath raise additional questions about Bragg's supply problems in relation to his strategic decisions. The movement of Longstreet's division added to the difficulty in supplying a larger army. Bragg's and Longstreet's soldiers were on short rations before and during the battle. Interestingly, Bragg may have let supply problems be the factor that led to him not following up his victory. In later reports of why he did not pursue Rosecrans after Chickamauga, Bragg asserted that his men were out of food, water, and ammunition. "Our supplies... were greatly reduced.... These supplies were ordered replenished and as soon as it was seen we could be subsisted, the army was moved forward."²⁴⁰

In early 1864, the blockade had interrupted supplies to Confederate armies that the government was forced to regulate the railroads. In January 1864, the Army of Northern Virginia had so few supplies that it was put on quarter-pound salt meat rations.²⁴¹ Things only got worse. On February 28, Lee's chief commissary reported that the army was down to two days' bread and only a few days of meat."²⁴² Due to this dire supply situation the government tightened its

²³⁹ *OR*. Series 1, XXIII, (1) 584.

²⁴⁰ *OR*. Series 1. XXX, (2) 36.

²⁴¹ *OR*. Series 1. XXXIII, 1061.

control over the railroads to ensure its fighting troops received the limited supplies the Confederacy could provide. In March, some of the railway lines were placed under military control and regular supplies flowed to the fighting men. By the end of March however, the government lifted its strict control of railways and supply shipments fell off.

As Confederate armies prepared to counter the Union's 1864 offensives, cavalry horses and those used for field transportation were in rough shape from the effects of the blockade. The animals the Army of Northern Virginia had were semi-starved and weak from inadequate food from the supply situation over the winter months.²⁴³ This was one of the reasons Lee's army became immobilized and was on the defensive. The lack of basic equipment needed to tend the animals caused horse casualties. The lack of currycombs, tack, harnesses, bits, and horseshoes became major problems whenever cavalry or transport was needed. Edward Porter Alexander wrote about the lack of horseshoes while fighting in Tennessee in 1863, the problem was undoubtedly worse in 1864:

We were so deficient in horseshoes that on the advance to Knoxville we stripped the shoes and saved the nails from all the dead horses, killing for the purpose all wounded and broken-down animals, both our own and those left behind by the enemy ... the river brought down a number of dead animals thrown in within the town. We watched for these, took them out, and stripped their feet of shoes and nails.²⁴⁴

Horse harnesses were in demand in the Confederacy from the lack of salt to cure leather due to the blockade. By 1864, leather cost \$5.30 per pound in the South and replacement

²⁴² John B. Jones.. *A Rebel Clerk's Diary at the Confederate States Capital* (Philadelphia: J.B. Lippincott and Company, 1866), Vol. 2, 161.

²⁴³ Charles W. Ramsdell, "General Robert E. Lee's Horse Supply, 1862-1865." *American Historical Review*, 35, No. 4 (July 1930), 770-772.

²⁴⁴ Edward Porter Alexander, *Military Memoirs of a Confederate* (Chapel Hill: University of North Carolina Press, 1992), 491.

harnesses were rare items. Captured horse harnesses from Union troops were a sought-after prize.²⁴⁵

Lee's quartermasters could not even bring weak animals back to health from the lack of medicines and fodder. Most medicines had been shipped into the Southern states. The blockade cut off the supply of these medications. There were few or no medications to treat a common horse disease such as Glanders. As an example, a Confederate horse infirmary in Lynchburg Virginia received 6,875 animals from October 1863 to February 1865. Only 1,057 of these horses were brought back to health fit for service.²⁴⁶ The situation in the West was no better. In April 1864, an inspector was sent from Richmond to investigate the Army of the Tennessee's frequent calls for horses. The inspector discovered the quartermaster of the army had not even bothered to try to rehabilitate the weak horses due to the lack of supplies. The inspector discovered that 2,500 weak horses had been killed from January to April 1864.²⁴⁷ Even though the Army of Northern Virginia was the first to develop a meadowing system to try to bring weakened horses back to health, they became harder to maintain as the Confederacy lost territory. In January 1865, artillerymen in Jubal Early's army in the Shenandoah Valley were granted "horse furloughs" where men would be granted a furlough as long as they took an artillery horse with them to feed, care for, and rehabilitate.²⁴⁸

The blockade caused a spiral effect on the Confederate armies. Salt was needed to cure leather for horse saddles, harnesses, and tack. The lack of salt caused a shortage of leather to

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²⁴⁵ Jennings C. Wise, *The Long Arm of Lee or the History of the Artillery of the Army of Northern Virginia: Chancellorsville to Appomattox* (Lincoln: University of Nebraska Press, 1991), 908.

²⁴⁶ *OR*. Series 1, XXXII, (3), 772-773.

²⁴⁷ Wise. 709.

²⁴⁸ *OR*. Series 1, XLVI, (2), 1135.

make these products. Fewer leather products for horses, caused a lack of mobility for Confederate forces. Salt was also needed to cure meat. Without curing, meat would quickly go bad and begin to rot. Confederate armies suffered from the lack of meat and the lack of mobility from not having enough salt.

The Confederate war effort was also hamstrung by the lack of minerals used to manufacture war materiel. The lack of copper was a factor that forced it to use substitute materials and requisition copper from civilians. The main uses of copper were for percussion caps for rifles and to cast bronze cannon. A severe shortage of percussion caps could have been fatal to the army. Without these copper percussion caps, soldiers could not fire their weapons.

Copper mines were scarce in the Confederacy. The most productive mines were found in the extreme southeastern corner of Tennessee, near Ducktown in Polk County. The Confederate Nitre and Mining Bureau decided to depend on the Ducktown mines for its main source of copper and treat smaller mines in Carroll and Grayson Counties, Virginia as a reserve.²⁴⁹

In September 1861, Josiah Gorgas, the Chief of Army Ordnance, entered into a contract with the owners of the Ducktown mine to supply the Confederacy with 800 tons of copper for its uses. This vital source of copper would not always be in the possession of the Confederacy. Its occupation by the Union and the destruction of the South's only copper rolling mill in late 1863 was a major factor for the shortage of copper in the Confederacy. This shortage caused the desperate acts of having to requisition copper from civilians, the use of substitute materials for cannons, and the importation of copper across the blockade.

²⁴⁹ *OR*. Series IV, II, 30.

Union cavalry conducted a raid near Cleveland, Tennessee that caused this disaster. In November 1863, the raiders burned several railroad cars, destroyed the copper rolling mill in Cleveland, and tore up 12 miles of railroad track into the Ducktown mines.²⁵⁰ The destruction of the rolling mill and the severance of the East Tennessee and Georgia Railroad in that area was a major blow to the Confederate war effort. The railroad line in this area was a crucial part of the backbone of railroads that ferried supplies around the South. This part of the line was responsible for the transshipment of copper to the factories at Richmond and the percussion cap factory at Macon, Georgia. This line also allowed shipment of lead to flow from the mines at Wythe and salt from Saltville, Virginia.

The railroad was of vital importance for the shipment of these raw materials because they could not go by road. Roads that ran east from Cleveland Tennessee were dangerous. Only armed groups could safely use these roads. By mid-1863 in Cherokee County North Carolina , a considerable band of armed deserters, pro-Unionists, and draft dodgers operated in the area and added to their numbers by the week.²⁵¹ They made this area a dangerous one to traverse until the end of the war.

The elimination of the Ducktown mines as a source of copper created great anxiety in the Ordnance and Nitre and Mining bureaus. These organizations came up with a five-point program to deal with the emergency. The casting of bronze field guns was stopped. All available copper was hoarded and requisitions of copper from civilians was quietly begun. The importation of copper from foreign sources was also to be stepped up. The shortage of copper was not felt immediately, but it became acute by 1864.

²⁵⁰ *OR*. Series I, XXXI, 436.

²⁵¹ *OR*. Series I. XXXI, (2), 783.

The elimination of the casting of bronze field guns was not a disaster for the Confederate artillery. Iron casting of Napoleon-type cannons proved an adequate substitution. Josiah Gorgas commented on the substitution of iron to cast cannons; “When copper became scarce, we fabricated an iron Napoleon with a wrought iron jacket, weighing in all 1,250 pounds, which was entirely satisfactory; and was cheerfully accorded by the artillery companionship with their bronze favorites.”²⁵² Confederate ingenuity was able to overcome the shortage of copper for the artillery.

The loss of the Ducktown mines forced the importation of copper from foreign suppliers across the blockade. The blockade made it difficult to successfully import the copper. It was also difficult to arrange on short notice after the loss of the Duckworth mines. Between November 1863 and October 1864, only 24 packages of copper were able to successfully enter the South through Wilmington, North Carolina and Charleston, South Carolina. The weight of this copper was reported to be 31,208 pounds on a December 31, 1864 report.²⁵³

In light of the small amounts of copper that could be successfully imported, requisitions from the population were needed to supply the copper needs of the Confederate army. An officer, Lt. Colonel W. Leroy Broun from the Richmond arsenal, was sent to North Carolina to impress or purchase all copper turpentine and apple brandy stills he could find. Apparently, he was quite successful in his mission and shipped enough copper strips, when re-rolled, to provide a major source of the material during the last year of the war. Broun endorsed a letter in which he stated he had purchased 130,000 pounds of copper in North Carolina and could get more from

²⁵² Josiah Gorgas. "Notes on the Ordnance Department of the Confederate Government." *Southern Historical Society Papers*, XII (January-February 1884), 93.

²⁵³ *OR*. Series IV, III, 990.

the southern part of the state. This scrap copper was able to supply the copper needs of the Confederate forces after the Ducktown mines were no longer operational.²⁵⁴ The scanty amount of copper successfully imported across the blockade show that only by requisitioning copper from civilians, the Confederate armed forces could obtain enough of this resource to keep fighting.

The effects of the Union blockade on Confederate forces shows just how crucial the supply chain was to 19th century armies. Products such as lead, nitre, copper, salt, clothing, shoes, and boots were all essential to military forces. The blockade made these products scarce in the South. This led to a spiral effect on the Confederate armed forces. Many of these products had to be imported by blockade running ships. When the Union blockade grew more effective, the supply became unreliable.

The lack of salt led to less leather goods that were used to cure leather for boots, but also used for horse saddles, tack, and harnesses. The lack of leather and even horseshoes contributed to the eventual immobilization of Confederate armies. New sources of Nitre used to make gunpowder were found in the South, but as territory was lost to Union forces, Nitre for powder had to be imported on the unreliable blockade runners. The lack of copper was a problem where percussion caps and cannon could not be cast. It created an occasion for ingenuity to solve the problem with cast iron cannons but requisitioning enough copper from civilians was not a sustainable source.

The shortages caused by the Union blockade had an effect on Confederate strategy and the war effort. Many readers may be familiar with the argument in Hattaway, Beringer, Jones,

²⁵⁴ *OR*. Series IV, III, 990.

and Still's work, *Why the South Lost the Civil War*. The authors argue that the lack of supply did not cause Confederate armies to lose any major battle. This is true. The blockade did affect minor battles and strategy, which affected major battles. Also, nineteenth century armies needed a reliable supply chain of war materiel to keep fighting and enough food to keep soldiers healthy. How long could Confederate armies go on fighting when their quartermasters lacked copper, lead, salt, tanned leather, horses, shoes, blankets, and other crucial military supplies? The blockade caused the curtailment of these crucial products and supplies in the supply chain for Southern military forces. The blockade helped to cause Confederate military forces to not be as effective as they could have been. It is also important to note that the Army of Northern Virginia was pushed out of its strong defensive positions and surrendered just a few months after the last major port that supplied the Confederacy, Wilmington, was captured. Wilmington had a direct rail line to supply Petersburg, Virginia and the Army of Northern Virginia.

Chapter 7: Effects of the Blockade on Southern Railroads

The blockade by Union naval forces had a disproportional effect on the transportation of the states in the Confederacy. Robert C. Black summarizes it as, "...the progressive anemia from the Federal blockade steadily was denying nourishment to the railroads of the South. Sea power had hobbled the iron horse."²⁵⁵ Before the war, the railroads in the South were dependent on industries of the North for locomotives, rolling stock, rails, and spare parts for repairs. During the war, the South depended on their railroads to transport people, soldiers, commodities, and foodstuffs. The blockade curtailed the importation of spare parts and other supplies that Southern railroads needed. When these sources of railroad parts were cut off in the states that made up the Confederacy, the railroads fell into disrepair. For a good part of the war, Southern railroads were close to a total systemic breakdown. By the end of the conflict, Northerners who attempted to use Southern railways were astonished at the terrible wear and tear that was evident on these railways when they had no maintenance for four years. Traveling through Southern states in 1865, Whitelaw Reid noted, "[Our train was] a wheezy little locomotive and an old mail agent's car, with all the windows smashed out and half the seats gone."²⁵⁶

In 1861, the railroads in the states that formed the Confederacy were not at a giant disadvantage in terms of railroad resources. The South was an early proponent of railways and the first scheduled steam-powered trains were used on the South Carolina Railroad in 1830. At the time of Secession, the Southern states possessed one-third of the miles of track found in the

²⁵⁵ Robert C. Black III, *The Railroads of the Confederacy* (Wilmington: Broadfoot Publishing Company, 1987) 124.

²⁵⁶ Whitelaw Reid, *After the War: A Tour of Southern States, 1865-1866*. Edited by C. Vann Woodward (New York: Harper Torchbooks, 1965), 28.

United States. This also included one-third of the freight cars, one-fifth of the locomotives, one-fifth of the railroad workers, one-eighth of the rail production and one-twenty-fourth of locomotive production.²⁵⁷

The rail system in the South was not really a “system” at all. Southern railroads were typically short feeder lines that connected agricultural areas to port cities to benefit merchants. There was often no physical connection between railroads and Southern railroads used different rail gauges. For example, the major railroad hub of Richmond, Virginia was served by six different railroads. There was usually no arrangement between different railroads for the locomotive or cars from one to be used on the tracks of another. To travel long distances, passengers and freight usually had to change cars every time they passed from one railroad to another. Some Southerners enjoyed the fruits of profitable railroads and viewed the railroads as a way to bring people and goods into towns. They did not see the bigger picture of the advantages of consolidating smaller railroads into larger unified systems.²⁵⁸

The rail net in the southern United States was a major asset to the Confederacy, but had some serious deficiencies that limited its effective use for military purposes. The longer regional railroads of the South were located west of the Appalachian Mountains and ran North to South. These lines ran in the wrong direction from where the fighting was taking place. What the Southern forces needed were better East to West lines to link the major theaters of the war. The most direct line for this purpose ran from Memphis, Tennessee to Virginia. This line consisted of

²⁵⁷ Christopher R. Gabel, *Rails to Oblivion: The Decline of Confederate Railroads in the Civil War* (Leavenworth: U.S. Army Command and General Staff College Press, 2002) 1.

²⁵⁸ Black, 47.

four separate railroads. The longest of these small railroads had the name, “Memphis to Charleston Railroad” but it only ran from Memphis to Stevenson, Alabama.

The three fatal flaws of railroads in the Confederacy were the condition of many of the tracks of Southern railways in 1861, the Union blockade, and time itself. Not all Southern railways were running on good track when the war began. The condition of many of the railroad tracks of Southern railways was mediocre or they consisted of obsolete rails. Many Southern lines used the obsolete “U-rail” as opposed to the modern form of rail known as “T-rail.” Others used antiquated “strap rail “ or “flatbar” tracks. These were wooden rails that were topped by a strip of light iron. One of the more important Southern rail arteries, the Richmond to Danville Railroad, included 47 miles of strap rail tracks in 1861.²⁵⁹ During the war years, the wear and tear on the railroads started with the rails themselves. These rails were typically made of iron, not the steel of modern rails. These iron rails could wear out in as little as three years on heavily traveled lines and cause frequent derailments.

Before the war, the South imported most of its rail from the North or from England. With the Union blockade, the imports dropped off. Importing rail was not suited to blockade-running ships. Rail was a high-bulk, low-value cargo that captains of blockade-running vessels saw little profit for the risks they took. The production of railroad iron was an especially pressing problem for the South. In 1861 the South had one plant in Atlanta, Georgia that was making rails. Most of its production was snatched up by the Confederate Navy to plate its gunboats and the plant stopped producing rails for Southern railroads. The many small railroads had small supplies of rails intended for their own needs. Larger stockpiles, that were to be used in projects to expand Southern railways, were piled in warehouses in New Orleans and Pensacola.

²⁵⁹ Gabel, 12.

A small additional amount of rails and locomotives was procured by armed raids in 1861. A new railroad quartermaster, Thomas R. Sharp, managed to “procure” 17 locomotives, at least 100 railroad cars, and 47 miles of rails from the Baltimore and Ohio Railroad to be used on Confederate railroads in this manner.²⁶⁰

The Confederacy relied on its railroads to move troops and supplies. The railroads were heavily used during the war and the wear on the iron rails was extensive. Conductor Nimrod J. Bell recalled, “Railroading in times of war was almost as bad as being in the army, for men were run day and night, Sundays not excepted. I have gone into Atlanta many times and got off one train and stepped right onto another to go back to Chattanooga.”²⁶¹

Despite the Union blockade, Confederate railroads performed adequately in the first three years of the war. During that time, no Confederate army lost a battle due to inadequate rail transportation. In fact, one might consider 1861 and 1863 a time of Confederate railroading triumphs. In the First Battle of Bull Run in July 1861, Confederate troops arriving by rail were decisive in securing a Confederate victory. A year later, Southern troops conducted the single biggest military rail movement of the war when 30,000 troops under General Braxton Bragg moved from Tupelo, Mississippi to Chattanooga Tennessee to launch Bragg’s invasion of Kentucky. In September 1863, 12,000 troops under General James Longstreet traveled from Virginia to northern Georgia to fight the Battle of Chickamauga. This last rail movement required coordination over fourteen different railroads.

²⁶⁰ David L. Bright, *Locomotives up the Turnpike: The Civil War Career of Quartermaster Captain Thomas R. Sharp, C.S.A.* (Shelby, NC: Westmoreland Printers, 2016) 140-141.

²⁶¹ James A. Ward (editor), *Southern Railroad Man: Conductor N.J. Bell’s Recollections of the Civil War Era* (Dekalb: Northern Illinois University Press, 1994), 12.

The Confederate railroad system ultimately failed from the Union blockade. No new rails and parts were provided to replace the wear and tear to the system. Not a single new rail was produced in the Confederacy after 1861.²⁶² Very few rails were imported by blockade-runners. The railroads that the Confederacy relied on had to use existing rails for four long years. The tracks naturally became worn with heavy use and had to be replaced. There were ways that Southern railroads improvised to replace worn-out track or lay new ones. One way was the “rob Peter to pay Paul” approach. Sections of seldom used tracks could be torn up and reused to repair heavily used vital lines. This was done often along railways that needed crucial maintenance. The Richmond and Petersburg line used the iron rails of its Port Walthall spur for repairs. It also used two miles of rail from its City Point branch to repair its South Side branch. Even these efforts could not keep up with the deterioration of track. By March 1863, even the important Richmond and Danville line still had five miles of antiquated “straprail” that was worn-out and unusable. A 20 mile portion of Southern Mississippi’s line from Jackson to Vicksburg was in such critical condition that suspension of train operations was expected daily.²⁶³ Conductor Bell recalled, “Some of the bridges and trestles were very shakly that we ran over, between Augusta and Wilmington. I have noticed trestles in passing over them, and while the weight of the engine and train was on them the bents would go down with the mudsills out of sight in the mud, and as soon as the train passed off, rise up again.”²⁶⁴

The condition of the tracks governs the speed of locomotives. A second improvised approach to run trains on worn-out rails was to force the locomotives to run at slower speeds

²⁶² Black, 124.

²⁶³ Ibid., 124-125.

²⁶⁴ Ward, 32.

to try to limit derailments. A third approach was to run trains at fewer times and only during the day. Conductor Bell recalled, “We were not allowed to run at night, and also not allowed to run without a headlight. As the headlight of the engine was out of order and would not burn, I had one of my men ride on the front of the engine with a hand lamp until we reached the next side-track.”²⁶⁵

Without new rails, by 1863 rail was wearing out all over the South. Deteriorated tracks meant that more trains were needed to even maintain delivery rates. The worn rails contributed to the larger problem of missed timetables, the shortage of locomotives and rolling stock. It also reduced the amount of cargo that could be delivered to destinations. “We had orders to haul no passengers, but it was impossible to keep them off at times, as the trains were so irregular, and often so crowded that all the passengers could not get on them.”²⁶⁶

The rails that were confiscated from the North or were brought in by blockade-runners replaced worn “strap rail” lines or worn “U-rail” sections. There was little rail left to expand Southern railroads. Small gaps were closed between existing railroads, such as between Danville, Virginia and Greensboro, North Carolina and the Meridian, Mississippi to Selma, Alabama gap. The rail in these projects was generally obtained by cannibalizing little used lines. As the war progressed, all major lines stayed open, but low-traffic feeder lines contracted as their rails were used for the more heavily trafficked lines. This is one of the reasons that contributed to the general food shortage in Confederate cities and army camps in the last years of the war. Crops being raised in rural areas could not be shipped due to the cannibalization and contraction of rural rail lines.

²⁶⁵ Ward, *Southern Railroad Man: Conductor N.J. Bell's Recollections of the Civil War Era*, 34.

²⁶⁶ Ward, 34.

The railroad lines that were used often were in disrepair as many railroad men and track maintenance crews were conscripted for the Confederate forces. A few experienced railroaders carried papers that exempted them from military service. With less crews and poorly maintained stations, locomotives were often out of water and wood. As Conductor Bell recalled,

“[Military men] have the engine pushed up to a pond of water near the track and have water put in the tender. This was done with water-buckets: a man to dip the water up, and a line of men from the one that dipped the water to the tender, and a man on the tender to take the bucket and hand it to a man on top of the tender, who poured the water into the tender; and two or three men placed to throw and catch empty buckets, so as to pass them back to the man who dipped the water. This was called bailing water. There was a great deal of it done during the war, as well as using fence-rails for fuel.”²⁶⁷

The blockade affected the regular maintenance for steam locomotives and rolling stock. The operation of a steam locomotive involves water, heat, pressure, and friction on many moving parts. Steam engines are very labor intensive and need constant maintenance. They also require major rebuilding at regular intervals. Major rebuilding requires the complete disassembly and replacement of major components such as the firebox and the small pipes that carry hot gases through the boiler called flues. Rebuilds are necessary every few years for locomotives in regular use.

Between rebuilds, there is also major maintenance that must be conducted such as the drive wheels that may need to be replaced. The flues in the boiler need to be cleaned regularly as well as bolts on the frames and trucks that need to be tightened. Routine maintenance also includes the regular lubrication of moving parts and cleaning the firebox. Without these rebuilds on Southern locomotives, their thermal and mechanical performance declined rapidly. Along all Southern railroad lines, mechanics submitted gloomy reports. Boiler flues could not be

²⁶⁷ Ward, 24.

purchased for major maintenance and replacement wheels were unobtainable. The miles that could be operated on a cord of wood decreases on the Southwestern Railroad from 84.5 in 1861 to 67.7 in 1863. The average performance of locomotives for a cord of wood on the Central Georgia line was 81 in 1860, but had decreased to 60 in 1863. By the spring of 1863, the important Richmond and Danville line had degenerated to the point that its president worried that freight service would have to be reduced to tri-weekly runs.²⁶⁸

The Union blockade caused shortages of virtually everything that was needed for regular maintenance on locomotives including lubrication oil, machine tools, springs, steam gauges, copper, tin, and steel for the drive wheels. Some substitutions could be made. One railroad line used bacon grease for whale oil lubricants that had been cut off by the Union blockade, but there were no substitutes for the other specialty parts that were needed. As the locomotives deteriorated, so did their performance. Speeds dropped thus making it necessary for locomotives to make more runs just to maintain delivery timetables. More runs on deteriorating locomotives and rolling stock compounded the problem of maintenance.

New locomotives were not available to replace ones that needed major maintenance. Before the war, locomotives could be built in Richmond and Petersburg, Virginia; Atlanta, Georgia; and Nashville, Tennessee. The Tredegar Iron Works in Richmond was the largest producer of locomotives in the South, but they could only produce 10 in a year. This was a very small amount compared to the number of locomotives that were used on Southern railway lines. The great majority of locomotives were built in the North, at factories such as the Baldwin Locomotive Works. Once the war started, Southern locomotive production dropped to nothing.

²⁶⁸ Black, 125.

Factories such as the Tredegar Iron Works and other machine shops that could produce locomotives switched to armaments production.

After secession and the Union blockade, Southern railroads had to use the locomotives they had on hand. These deteriorated with constant use and the lack of maintenance. By 1863, the annual report by the Virginia and Tennessee Railroad shows how acute the maintenance problem had become. The report lists 40 locomotives for the railroad on the roster. Of that number, 18 were classified as “useless” or “awaiting repairs.”²⁶⁹ At the same time, only six of the twenty-six locomotives on the North Carolina Railroad could be classified as in “good order.”²⁷⁰

Railroad cars or rolling stock also deteriorated over time. At the time of the Civil War, rolling stock was made entirely of wood and were expected to last only seven or eight years with normal use. Under wartime conditions, the cars received heavy use but repairing one would require withdrawing it from service. This would have put even more strain on the existing rolling stock. While Confederate railroads could replace the wooden components, the metal trucks, axles, and wheels were much more problematic because replacements were not available. Worn out wheels, along with poor rails and deteriorating locomotives caused the trains to move at slower speeds. This also reduced the volume of rail traffic.

There were ironworks that could manufacture railroad wheels in the Confederacy. It is ironic that as the rail system deteriorated, the production of railroad wheels also decreased. A foundry in Atlanta, Georgia was capable of producing 50 wheels a day. By February 1863, their

²⁶⁹ Angus J. Johnston, *Virginia Railroads in the Civil War* (Chapel Hill: University of North Carolina Press, 1961), 156.

²⁷⁰ Black, 125.

capacity was down to only 15 as there was insufficient rolling stock to supply them with raw materials to make railroad wheels.²⁷¹ As wheel production declined, so did deliveries of raw materials. This further depressed production.

The Confederate Navy could not hope to disperse the Union blockade without building more ironclad warships. Secretary of the Navy, Stephen Mallory, pilfered railway iron in order to build ironclads. Rails that could have been used to replace worn-out rails were used instead as iron plating for Confederate warships to help fight the blockade. In June 1862, the Confederate Navy “impressed” 1,100 tons of rail and fastenings that belonged to the Atlantic and Gulf Railroad in southern Georgia. 700 tons of railroad iron was also taken from the Atlantic and North Carolina Railroad. In 1863, the Western Railroad in North Carolina gave up 4,224 new rails in order to construct “Rebel rams” for the navy.²⁷²

The last year of the war saw the railroads forced to increase charges and decrease services due to the disintegrating physical plants. Timetables in the final year of the war show the slow trains and reduced service. In 1861, the 80 mile ride from Montgomery, Alabama to Columbus, Georgia was a morning ride; in 1865 it took all day. In June 1864, the fastest train on the Wilmington and Kingsville line could cover the 171 mile distance from Wilmington, North Carolina to Kingsville, South Carolina at only a speed of ten and one-quarter miles per hour.²⁷³ Mary Chesnut remarked, “We broke down only once between Kingsville and Wilmington, but between Wilmington and Weldon [we collapsed] so effectually as to have to remain twelve hours at that forlorn station.”²⁷⁴ In April 1865, Eliza Frances Andrews noted the poor condition of

²⁷¹ Black, 118.

²⁷² Black, 205.

²⁷³ Black, 217.

Georgia railways, “We found the railroad between Mayfield and Camack even more out of repair than when we passed over it last winter, and the cars traveled but little faster than our mule team.”²⁷⁵

The last six months of the war saw Confederate railroads slip from decline to collapse. In December 1864, a division of troops under the command of Major General Hoke set out from Petersburg, Virginia to Wilmington, North Carolina over the Piedmont Railroad. This was one of the new stretches that was build during the war. Due to the miserable condition of the rails and rolling stock, it took the lead brigade three days to travel the 48 miles over the Piedmont. The rest of the division simply walked the 48 miles.²⁷⁶ In March of 1865, the new Confederate Commissary General reported that due to the decrepit condition of the locomotives and railway cars, he could not guarantee the delivery of 500 tons of military rations into Richmond. There was food piling up at railroad depots in rural Virginia, but the damage the Union blockade had done to Southern railroads ensured they had lost the ability to move five trains per day into Richmond.²⁷⁷

The effects of the blockade on Confederate railroads slowly wore them down to the point of ineffectiveness. During the first 36 months of the war, Confederate railroads were capable of shaping campaigns and helping to win battles. In the years the railroads performed well, the Confederate military was able to thwart some Union advances and hold its own. The decline and

²⁷⁴ Mary Chesnut, *Mary Chesnut's Civil War*. Edited by C. Vann Woodward. (New Haven, CT: Yale University Press, 1981), 489.

²⁷⁵ Eliza Frances Andrews, *The War-Time Journal of a Georgia Girl* (Atlanta: Cherokee Publishing Company, 1960), 172.

²⁷⁶ Gabel, 25.

²⁷⁷ Isaac M. St. John, “Resources of the Confederacy in 1865-Report of General I. M. St. John, Commissary General.” Reprinted in *Southern Historical Society Papers* 3, No. 3 (March 1877), 97-103.

collapse of the railroads was due to the effects of the blockade. The Confederacy's inability to maintain its railroads due to the lack of spare parts to maintain the locomotives, rolling stock, and their railroad lines was a fatal flaw. The blockade ensured that Southern railroads died due to neglect.

Chapter 8: The Blockade Hastens the Collapse of the Confederacy

The cumulative effects of the blockade worked slowly, but effectively. The shortages on the home front and in the military had a telling effect on the Confederate will to continue fighting. Morale was weakened and Southerners started to question their devotion to a cause that seemed lost.

The war and the hardships caused by the blockade became too much for many people. Malaise and longing for the conflict to be over became the normal state of mind for many women. In February 1865, Emma LeConte wrote in her journal,

Yesterday, except the portion spent in writing this record, was spent in wandering aimlessly about the house or sitting in the sun.... I suppose it is the reaction from the frightful strain and nervous tension – this violent excitement. And then the uncertainty of the future – what is to become of us.... I feel at times an entire and apathetic indifference as to what should transpire”²⁷⁸

Parthenia Hague also shared the bitterness that their sacrifices were only rewarded by defeat. “We were fighting hard at home to keep the upper hand of the difficulties which hedged us in; we were working and fasting and praying that victory might reward all our sacrifices and sufferings, yet day after day the newspapers brought news of defeat after defeat.”²⁷⁹

The Southern population at home could feel that they had been defeated and the end was near, even if the Confederate army was still fighting. Grace Brown Elmore sullenly wrote, “Today the last of 64, a gloomy dark, day, the end of a gloomier year. Each year as it closed has found us bereft of a portion of our inheritance, and further from our independence. This year God

²⁷⁸ Emma LeConte. *When the World Ended: The Diary of Emma LeConte*. Edited by Earl S. Miers. (Lincoln: University of Nebraska Press, 1987), 64.

²⁷⁹ Parthenia A. Hague, *A Blockaded Family: Life in Southern Alabama During the Civil War* (Tuscaloosa: The University of Alabama Press, 2007), 142.

help us we are almost at the end of the log.”²⁸⁰ Emma LeConte also shared in the general malaise at the end of 1864; “I wonder if the new year is to bring us new miseries and sufferings. I am afraid so. We used to have bright anticipation of peace and happiness for the new year, but now I dare not look forward. Hope has fled, and in its place remains only a spirit of dogged, sullen resistance.”²⁸¹

In the final months of the war many women concluded that the deprivations and sacrifices they had endured for years had been for nothing. They were on the losing side of the conflict. Writing in South Carolina, Grace Elmore began her diary entry in January 1865 with a foreshadowing of doom, “When everything is crumbling around our feet, nothing sure but the present moment; and the future filled with the darkest shadows.”²⁸² Writing in Richmond Virginia, Sallie Brock Putnam observed, “We had long been under depressing influences, and we felt that the spirits of the people were gradually bending to the stern destiny of defeat.”²⁸³ In southern Alabama, Parthenia Hague reasoned,

We were fighting hard at home to keep the upper hand of the difficulties which hedged us in; we were working and fasting and praying that victory might reward all our sacrifices and sufferings, yet day by day the newspapers brought news of defeat after defeat; day by day they told us of the inexorable advance of the Federal troops; day by day the conviction strengthened within us that struggle as we would, we were on the losing side...²⁸⁴

²⁸⁰ Grace B. Elmore, *A Heritage of Woe: The Civil War Diary of Grace Brown Elmore, 1861-1868*. Edited by Marli F. Weiner. (Athens: The University of Georgia Press, 1997), 87.

²⁸¹ LeConte, 4-5.

²⁸² Elmore, 88.

²⁸³ Putnam, 357.

²⁸⁴ Hague, 142.

In Columbia South Carolina, even the intelligent and talented Emma LeConte concluded,

They say right always triumphs, but what cause could have been more just than ours? Have we suffered all – our brave men fought so desperately and died so nobly for this? For four years there has been throughout this broad land little else that the anguish of anxiety – the misery of sorrow over dear ones sacrificed – for nothing! Is all this blood spilled in vain – will in not cry from the ground on the day we yield to these Yankees! We give up to the Yankees! How can it be? How can they talk about it?²⁸⁵

On the home front, women struggled to run the farms and take care of their children and families. At first they wished for their husbands or fathers to be back. As conditions worsened, because of the blockade, desperate women wrote to their husbands about their plight, urging them to desert and come home. In December 1864, a soldier's wife and mother of small children from Nasesemond County Virginia wrote to her husband,

Christmas is most hear again, and things is worse and worse...Everything me and the children got is patched. Both of them is in bed now covered with comforters and old pieces of karpet to keep them warm, while I went 'long out to try and get some wood, for their feet's on the ground and they have got no clothes, neither:... We haven't got nothing in the house to eat but a little bit of meal. The last pound of meet... is all eat up, and so is the chickens we raised. I don't want you to stop fighen them yakees till you kill the last one of them, but try and get off and come home and fix us all up some and then can go back...We can't none of us hold out much longer down here.²⁸⁶

At his court-martial trial for desertion, Edward Cooper's only defense was a letter from his wife,

My dear Edward: I have always been proud of you, and since your connection with the Confederate army, I have been prouder of you than ever before. I would not have you do anything wrong for the world, but before God, Edward, unless you come home, we must die. Last night, I was aroused by little Eddie's crying. I called and said, 'What is the matter, Eddie?' and he said, 'O mamma! I am so hungry.' And Lucy, Edward, your darling Lucy; she never complains, but she is growing thinner and thinner every day. And before God, Edward, unless you come home, we must die. Your Mary.²⁸⁷

²⁸⁵ LeConte, 90.

²⁸⁶ As quoted in Joe A. Mobley. *Wear of War: Life on the Confederate Home Front* (Westport: Praeger Publishers, 2008), 54.

The letter from Cooper's wife brought the court to tears. Both Cooper and the soldier from Virginia received pardons for their desertion.

The blockade slowly caused deprivations on the home front that eventually affected the military. As men on the war fronts heard about the suffering on the home front, which was made worse by the Union blockade, they decided they needed to desert. "The men felt that their services in the army were useless and that their families required their attention."²⁸⁸ One soldier told his commanding general, "I cannot and will not stay idly here while the life of my wife goes out."²⁸⁹ Confederate officers knew that their men were hearing about the deplorable conditions of their loved ones at home and were powerless to stop desertions.

The condition of the affairs throughout the South at that period was truly Deplorable. Hundreds of letters addressed to soldiers were intercepted, and sent to army headquarters, in which mothers, wives, and sisters told of their inability to respond to the appeals of hungry children for bread, or to provide proper care and remedies for the sick, and in the name of all that was dear, appealed to the men to come home, and rescue them from the ills which they suffered and the starvation which threatened them. Surely never was devotion to one's country and to one's duty more sorely tested than was the case with the soldier's of Lee's army during the last year of the war.²⁹⁰

The lack of supplies and devotion to a cause that seemed lost also lowered morale enough for men to desert. A Confederate sergeant who was taken prisoner in April 1865 spoke for many when he summarized,

For six or eight months back, our men have deserted by thousands. Those who

²⁸⁷ As quoted in Ella Lonn, *Desertion During the Civil War* (Lincoln: University of Nebraska Press, 1998), 13.

²⁸⁸ *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies*. (OR) (Washington: Government Printing Office, 1880-1901), Series 1, XLI, (II) 1054.

²⁸⁹ As quoted in Mark A. Weitz, *More Damning than Slaughter: Desertion in the Confederate Army* (Lincoln: University of Nebraska Press, 2005), 285.

²⁹⁰ Walter H. Taylor, *Four Years with General Lee* (Bloomington: Indiana University Press, 1996), 145-146.

Remain have been held by a sentiment of honor only. They did not wish to Disgrace themselves by deserting their flag. They have done their duty to the Best of their ability. As to the Southern Confederacy, although they would have liked to have seen it triumph, they lost all hope of it long since.²⁹¹

Some letters of Southerners from mail bags show that even in the summer of 1863 there was one common sentiment, the weariness of the war. Soldiers saw that despite desperate and heroic efforts, there was defeat everywhere and that their toils and sufferings were unproductive against the inexhaustible numbers of men and supplies of the enemy.²⁹² In September 1864 after being captured, a Southern deserter summarized why he deserted to his Union captors, “He surrendered himself and expressed himself as being heartily tired of the rebellion... He said there is great suffering in the rebel ranks... He was very ragged when he came here.”²⁹³

By late 1864, Confederate soldiers only had to compare their supplies as opposed to the supplies of their enemy to judge how the war was going. This comparison undoubtedly helped to lower morale. A Virginia soldier lamented,

The whole country around here is bright with tin cans used by the Yanks for vegetables, condensed milk, lobster, oysters, fruit and everything else... while bottles in vast quantities attest the prevalence of ‘spirits’ and their devotion thereto. I go to bed and console myself with the reflection that this ‘cruel war’ will one day be over.²⁹⁴

General Beauregard reported on March 9, 1865 that furloughed men were slow to return to their units and “My opinion is that desertion from the army was now an epidemic. They

²⁹¹ Regis de Trobriand, *Four Years with the Army of the Potomac* (Boston: Ticknor and Company, 1889), 375.

²⁹² Ella Lonn, *Desertion During the Civil War* (Lincoln: University of Nebraska Press, 1998), 18.

²⁹³ *OR*. Series I, LXI, III, 145-146.

²⁹⁴ As quoted in Daniel E. Sutherland, *Seasons of War: The Ordeal of a Confederate Community, 1861-1865* (New York: The Free Press, 1995), 296.

deserted by hundreds from the cars on their way here. The same complaint reaches us from Lee's army."²⁹⁵ On March 31, 1865 a general in the Headquarters District of Western North Carolina wrote that, "I have nothing to report but disobedience of orders, neglect of duty, demoralization of the people and desertion of both officers and men."²⁹⁶

Nothing portrays the demoralization of soldiers and civilians better than the change in attitude toward desertion. Early in the war, desertion was seen as a high crime and a severe offense. General Johnson wrote in May 1863 that, "The great majority of my brigade would shoot a deserter as quick as they would a snake."²⁹⁷ By March 1865 the Assistant Secretary of War reported, "there are over 100,000 deserters scattered over the Confederacy; that so common is the crime, it has in popular estimation lost the stigma which justly pertains to it, and therefore the criminals are everywhere shielded by their families and by the sympathies of many communities."²⁹⁸

In December 1864, General Edward Porter Alexander had seen secret reports from many different Confederate departments that all told the same gloomy story about supplies,

The Quartermaster Department was on the verge of exhaustion of all supplies of forage & its only chance to get clothing, or such supplies as were needed to keep the worn out railroads even passable, were through blockade running. The Medical Department had always only lived from hand to mouth, through the blockade. And the Ordnance Department, which had already cut up the last turpentine still in the South to make percussion caps from the copper, was now dependent upon the blockade runners for them, as well as many other essentials.²⁹⁹

²⁹⁵ *OR*, Series I, XLIX, pt. I, 1042.

²⁹⁶ *OR*, Series I, XLVII, pt. III, 730.

²⁹⁷ *OR*, Series I, LI, pt. II, 1064-1065.

²⁹⁸ *OR*, Series I, LI, pt. II, 1065.

²⁹⁹ Edward Porter Alexander, *Fighting for the Confederacy: The Personal Recollections of Edward Porter Alexander*. Edited by Gary Gallagher (Chapel Hill: The University of North Carolina Press, 1989), 504.

In a candid report of March 5, 1865 the Assistant Secretary of War reported the sad condition of the Army of Northern Virginia that the Union blockade helped to create,

Production has been diminished and the quantity of supplies has been so much reduced that under the most favorable circumstances subsistence for the army would not be certain and adequate. At present these embarrassments have become so much accumulated that the late Commissary-General pronounces the problem of subsistence of the Army of Northern Virginia, in its present position, insoluble, and the present Commissary-General requires the fulfillment of conditions, though not unreasonable, nearly impossible. The remarks upon the subject of subsistence are applicable to the clothing, fuel, and forage requisite for the army service, and in regard to the supply of animals for cavalry and artillery. The transportation by railroad south of this city is now limited to the Danville road. The present capacity of that road is insufficient to bring supplies adequate to the support of the Army of Northern Virginia, and the continuance of that road, even at its existing condition, cannot be relied on. It can render no assistance in facilitating the movement of troops.³⁰⁰

The blockade did its work slowly but had a spiraling effect on the South. The blockade cut off vital spare parts and rails needed by the railroads. As the locomotives sat idle for lack of parts, railway schedules could not be met. As tracks wore out, train speeds were lowered and track sections were cannibalized to repair or replace rails on more heavily used lines. This helped to cause rail lines in rural areas to not have the tracks to get farm products to larger markets.

The blockade also cut off the supply of vital ingredients such as salt. Salt was needed to cure and preserve meat. It also was used to tan leather for boots, saddles, tack and harnesses. The lack of a meat preservative and an ingredient for tanning leather caused a shortage of preserved meats in urban areas and the proper tack and harnesses for horses.

The blockade made vital materials, such as copper, scarce. Copper was used for percussion caps, bronze cannons, and telegraph wire. Iron was found to be a decent substitute to

³⁰⁰ *OR*, Series I, LI, II, 1066.

cast cannons, but telegraph wire and percussion caps had to be manufactured by the government commandeering copper tubing and kettles from civilians. Commandeering supplies of this vital metal to supply the war effort could be done as a stop-gap measure. In the long run, commandeering copper from civilians was unsustainable as a steady source of this vital mineral.

As this study has shown, there has never been a naval blockade alone that has caused an enemy nation to come to peace terms. Historic naval blockades from the Seven Years' War, the American Revolution, the Napoleonic Wars, the War of 1812, the Mexican War, and the Crimean War have always worked with ground forces and political forces for an enemy to come to peace terms.

Naval blockades are not foolproof. There has never been a naval blockade that has cut off 100 percent of a nation's sea trade into blockaded ports. There are ways around naval blockades, such as using smaller ports for commerce. Blockade-running vessels have always been able to slip into ports that are under a naval blockade.

The blockade tactics of the Union navy during the American Civil War were ones that had been used by the world's largest navies for decades. Not every kilometer of an enemy's coastline has to be blockaded. Only blockading an enemy's busiest major ports is necessary to conduct a blockade. Blockading an enemy's major ports had been practiced by the British in past wars, such as the Napoleonic Wars. Also occupying an enemy's port cities had been practiced by the British during the American Revolution and attempted during the War of 1812. The American Navy had found this strategy convenient during the Mexican War. Occupying major ports such as Veracruz not only denied an enemy major anchorages, but these ports could also be used by the United States to help supply their own forces. The occupation of Confederate ports was routinely practiced during the Civil War to deny the Confederacy access to imported goods.

During the Civil War, the tactics of besieging, then occupying a port had not undergone fundamental change since the 17th century. Traditional siege tactics that had been used in the time of the great French military engineer, Sebastien Vauban were still being used in the Civil War. Ground forces would begin digging parallel and sap trenches to get their artillery closer and closer to the defending forts and strongpoints around a port city. Once the defenses were overcome, the port that they guarded was forced to surrender. Examples of these tactics were the surrender of the ports of New Orleans, Louisiana and Mobile, Alabama. Once the fortifications that guarded these port cities were overcome, these ports surrendered.

Confederate forces tried different methods to break or weaken the Union blockading squadrons, but they were ultimately unsuccessful. The Confederate use of the newest ironclad technology from Europe forced the Union navy to match it with more and better ironclads of their own. The Confederate *guerre de course* or commerce raiders tried to draw off Union naval vessels, but there were just not enough Confederate commerce raiders to accomplish this. Most were eventually hunted down, sunk or captured. The Confederate use of technology in the form of semi-submersible and submersible warships was novel, but this technology was too new and unproven to make a difference. Submersibles were to prove their worth in future wars.

Many readers may be familiar with the argument made by Richard Beringer, Herman Hattaway, Archer Jones, and William N. Still that the Union blockade did not have a decisive effect on the supplies for Confederate forces. This conclusion is supported by their evidence of the cargoes of blockade runners.³⁰¹ This study also synthesizes the many other needs of a 19th century army such as saltpeter for the production of gunpowder, lead for bullets, copper for

³⁰¹ Richard E. Beringer, et al. *Why the South Lost the Civil War* (Athens: University of Georgia Press, 1986), 63.

percussion caps and telegraph wire, leather for shoes and saddles, blankets, and even horses. This study finds there were deficits in these crucial items that had an effect on Confederate armies. A lack of these items for the military caused changes in strategy, which affected smaller battles, skirmishes and lowered morale and the will to fight. The lack of these crucial items also made Southern armies less effective than they could have been.

The diaries of Southern women on the home front show that they suffered from a lack of basic necessities such as food, medicines, and clothing. Medicines were rare and civilians were encouraged to make holistic medications from plants that could be found in Southern fields and forests.³⁰² Not all needed medicines could be made from rare plants. Not all families could find the medicinal plants to create home remedies that were to substitute for pharmaceutical medications. Meals also became skimpy, especially toward the end of the war as food could not be transported to all places it was needed. Some new clothing was created by patriotic Southerners, but thread and cloth became scarce as the war dragged on. Eventually women and families on the home front told fighting men about such hardships that men started to desert the army in order to try and save their families.

Southern railroads were not an integrated system that could easily be used for military uses. There were many small railroad lines had been built to get produce like cotton to major cities or ports. These railroads even used different tracks and railroad gauges. When the war broke out, the railroads could not get enough spare parts to repair engines and rolling stock. The repair shops in the South, such as the Tredegar Iron Works, converted their machine shops for more important military work such as casting cannons. Southern railroads could not replace worn

³⁰² Francis P. Porcher. *Resources of the Southern Fields and Forests: Medical, Economical and Agricultural* (Charleston: Steam-power press of Evans and Cogswell, 1863).

tracks. No new rails were manufactured in the South after 1861. As sections of track wore out, the speed of locomotives was decreased and derailments became more common. Locomotives could not undergo major maintenance as there were not enough spare parts and labor could not be spared to maintain existing locomotives and rolling stock. By late 1863, trains all across the South were forced to alter their timetables and their service became irregular.

Like all naval blockades, the Union navy's blockade of the states that formed the Confederacy worked slowly. The Union blockade was not 100% effective, as authors such as William N. Still have shown it could be described as a sieve.³⁰³ This study was not concerned with how effective the Union blockade was. The important fact was that the blockade disrupted normal trade and was effective enough to eventually cause major shortages to Southerners on the home front and in the military.

The blockade only allowed fast blockade-running ships to slip through its cordon. The blockade interrupted normal trade where only fast blockade-running vessels would attempt to make trips into and out of Southern ports with goods to sell at a profit. Unprofitable, but vital equipment such as railroad rails and locomotive parts were not priority cargoes on the blockade-runners. The absence of heavy, bulky cargoes such as rails contributed to the breakdown of Southern railroads. Whatever cargoes the blockade-running ships could get past the blockaders was not enough to sustain Southern civilians and the Confederate war effort.

The Union naval blockade had faults, but it was as effective as other blockades that came before it. It was a harbinger of a blockade that would come 50 years later, when the Royal Navy blockaded Germany during the First World War. No blockade has ever sealed off an enemy

³⁰³ William N. Still, Jr., "A Naval Sieve: The Union Blockade in the Civil War" (*Naval War College Review*) 36 (May-June 1983).

nation. The Union naval blockade was no exception, but over time it became more effective. From 1861-1865 it grew to be effective enough to cause major shortages in the Confederacy that effected daily living and military strategy. With the ineffectiveness of the Confederate navy against the blockade, it was the catalyst of shortages on the home front and in the Confederate military. The Union blockade proved it was a major factor in the defeat to the Confederacy.

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